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ABSTRACT

Whether there is a causal link from attitudes to economic success is investigated in this study, which uses data from the Panel Study of Income Dynamics. A theory of motivation is proposed which has two components: motives, generalized dispositions to approach or avoid a class of incentives, and expectancies, an individual's assessments of the chances that his or her own performance will lead to a desired outcome. A positive motive, need for achievement, and a negative motive, fear of failure, are investigated. Generalized expectancies are measured by a personal efficacy index. Future orientation is also measured. An intergenerational analysis of the data focuses on whether motivational deficits among poor parents cause their children to remain at a low level of economic attainment, while an intragenerational analysis examines whether motivational deficits are responsible for poor adults remaining poor. Findings show modest or insignificant effects of motives on economic outcomes and, with one exception, no consistent effects of expectancies on outcome (the exception being an intergenerational one in which parental expectancies are important for young white women). Appended to the narrative are extensive tabular data and descriptions of the study methodology and variables. (CMG)

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FINAL REPORT OF THE PROJECT: "MOTIVATION AND ECONOMIC MOBILITY OF THE POOR"

PART 1: INTERGENERATIONAL AND SHORT-RUN DYNAMIC ANALYSES

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CHAPTER 1
SUMMARY OF THEORY, APPROACH AND RESULTS

Introduction

In an earlier discussion of the psychology and values of the poor, Rainwater (1970:136) recalled a famous confrontation between F. Scott Fitzgerald and Ernest Hemingway. When Fitzgerald claimed that the "rich are different from us," Hemingway retorted "Yes, they have more money." Their disagreement about the rich can also be applied to the poor. Do the poor differ from mainstream society in some crucial psychological sense or do they simply have less money? This is a crucial policy issue.

The two major opposing perspectives about what causes poverty can be termed the "flawed character" and the "restricted opportunity" views (Schiller, 1980). The flawed character view holds that there are abundant opportunities for improving one's economic status, but that the poor fail to take advantage of them because of lack of initiative and diligence. According to this school of thought, only by changing the attitudes of the poor could poverty be reduced. The restricted opportunity view, on the other hand, holds that the poor only have limited access to economic opportunity, regardless of their initiative and diligence. The policy implications of this view are of improving the economic opportunities of the poor. The access barrier most frequently cited (Schiller, 1980; Perlman, 1976; Thurow, 1969) is racial and sexual discrimination, encountered particularly in seeking quality education and stable, well-paying jobs.

The question as to whether attitudes are the main cause of poverty was central to the "culture of poverty" debate which raged in the late 1950's and the 1960's, and is an important part of the current discussion concerning America's "underclass." Many proponents of the culture of poverty theory argued that the poor (or some identifiable subgroup of the poor) had a distinct, separate culture, and that it kept them mired in poverty. It was believed that negative attitudes developed, persisted, and were in turn passed on to the next generation. It was quite clear to some of the proponents of this argument that economic resources and increased opportunities alone could not offset these attitudinal deficits. Banfield (1970:125) argued this case quite strongly:

> The view to be taken here is that...there is indeed such a culture of poverty but that poverty is its effect rather than its cause. Extreme present-orientedness, not lack of income or wealth, is the principal cause of poverty in the sense of "the culture of poverty."

By the mid-1970's the concept of a distinct culture of poverty no longer dominated the discussions. Indeed, Henry Aaron (1978:36-38) claimed that "the debate between the cultural and environmental view of poverty seems to have vanished without leaving significant intellectual residue." Since then, however, some of the ideas underlying the culture of poverty theory have resurfaced in academic and journalistic discussion of the underclass and of welfare dependency, and in arguments which link persistent economic need to crime and violence.

A prime example is Auletta's three-part New Yorker series and recent book, both entitled The Underclass. Auletta claims that there is a fairly broad consensus among students of poverty that an underclass exists. He argues that this underclass "suffers from behavioral as well as income deficiencies," "operates outside the mainstream of commonly accepted values" and is "often anti-social and violent."

A major problem in both the culture of poverty and underclass debates is that they were conducted in an extremely vague manner. In general, it was suggested that (1) the poor hold distinct values, aspirations, and psychological characteristics which (2) inhibit their achievement and produce behavioral deviancies which keep them poor, and (3) persist not only within but across generations through socialization of the young. Neither the proponents nor the opponents of these views offered a well articulated motivation theory about the impact of motivation on behavior. Such a theory is needed to delineate the values and features of individual personality which play a causal role in achievement, income attainment, and behavioral deviancy, and thus constitute the "critical" differences between the poor and the nonpoor. Without an explicit theory of motivation, most studies on both sides of the debate simply compared the poor and nonpoor, usually in some local region, with regard to atheoretically chosen traits or behaviors, concluding that the differences found were in some cases large enough but in others too small to support the culture of poverty argument.

Analytic Framework of this Report

In this report, we propose and test such a theory of motivation using data from the Panel Study of Income Dynamics (PSID). A subsequent report will summarize findings from new data collected from a representative sample of black young adults who were interviewed previously as part of the National Study of Black Americans.

Throughout this report, we focus on both inter- and intra-generational aspects of motivation and economic mobility. The inter-generational analysis shows us whether motivational deficits among poor parents cause their children to remain at a low level of economic attainment. The intra-generational analysis allows us to examine whether motivational deficits are responsible for poor adults remaining poor.

Intergenerational aspects of motivation and economic mobility are investigated through use of several unique aspects of the PSID. By following all family members after they leave home, the PSID gains a large and representative sample of individuals who were children during the early years of the study, and who had left home and established their own households by the end of the study period. For these young adults, parental income and parental motivation were reported by the parents when the children lived at home. The economic fortunes of the children, selected to be between the ages of 25 and 30 by the end of the panel period, were reported by the children after these children had set up independent households. No other set of data provides such rich information.

The intra-generational analysis explains the various causal links between motivation and economic circumstances. Short-run dynamic aspects of the relationship between motivation and economic success involve possible problems of reciprocal causation, i.e., a high level of motivation may result from past economic success rather than being the cause of subsequent success. This problem is explicitly modeled in our short-run analysis of motivation and economic outcomes.

The remaining portion of this summary chapter describes the model of motivation that guides our work, and summarizes results of the investigation. Chapter 2 reviews what is known and what is thought to hold regarding the relationship between attitudes and economic status. Chapter 3 describes the attitudinal measures used in our analyses. Chapter 4 summarizes the results of our intergenerational analysis. Chapter 5 summarizes findings from the short-run intragenerational analysis. In each of these latter two chapters, empirical findings are presented in a highly condensed form; extensive tabular data are contained in appendices to the report. All of the empirical work is conducted on data from the Panel Study of Income Dynamics. The appropriateness of these data for analysis of poverty dynamics is discussed in a final appendix.

The Dynamics of Motivation and Economic Well-Being

Guided by Atkinson's theory of motivation, the PSID has paid explicit attention to measuring motivation and modeling its impact on economic behavior. In this theory, motivation is defined as "the activated state of the person which occurs when the cues of a situation arouse the expectancy that performance of an act will lead to an incentive for which he has a motive." (Atkinson and Birch, 1978:25). This theory emphasizes the components of motivation--motives/incentives on the one hand and expectancies on the other. A motive is a generalized disposition to approach or avoid a class of incentives. The need for achievement, power and affiliation are examples of such basic motives. [illegible] expectancy is an individual's assessment of the chances that his or her [illegible] performance will, in fact, lead to a desired outcome. Overall motivation is the product of motives and expectancies; both must be present to some degree if motivation is to result in behavior directed toward success.

Attaining an adequate income, working full-time, completing a training program, taking on additional work hours, and remaining off welfare may all result, at least in part, from personal motivation. But the distinction between the components of motivation--motives and expectancies--is crucial. People can fail to progress along a career path because of their motives. They may lack positive motives for achieving economic goals, or their negative motives may be strong enough to inhibit productive behavior. Individuals may fail even when their positive need for achievement exceeds their negative fear of failure if they believe their chances for success are just too slim (i.e., their expectancies are too low); working toward a desired goal makes no sense if there is no perceived chance of achieving it.

These different components of motivation theoretically differ in their etiology, their potential responsiveness to changes in the environment that may be experienced by adults, and their implications for behavior. Motives are viewed as fairly stable dispositions, developed in childhood through family and school socialization and not very susceptible to alteration as a result of later experiences.

Expectancies, by contrast, are contemporary and much more readily susceptible to change. Some expectancies are highly specific to particular goals and immediate situations, as when a person evaluates the chances that putting in extra work hours will lead to a job promotion. Other expectancies are more generalized and global, having developed out of past successes and failures in similar situations. For example, blacks and women who have experienced extensive discrimination in the past may believe that such discrimination will continue to prevent them from getting ahead in many institutional realms. However, even generalized expectancies must be aroused by cues in the immediate environment if they are to influence behavior. Thus, both types of expectancies, the specific and generalized, are highly dependent upon present perceptions, opportunities, and constraints. Both may be influenced by current experience. Moreover, since the expectancy component of motivation is tied to one's current situation, the positive effects of expectancies on behavior will likely be stronger under conditions of opportunity than of constraint. Even if a person basically expects to succeed, generalized expectancy must be aroused by situational cues which suggest some likelihood of success. Under conditions of constraint, the situational cues needed to arouse generalized expectancies may be absent.

In one regard, motives and expectancies may be similar: children could acquire them from their parents while growing up. This transmission of values from parents to children could be a source of persistence in economic status across generations. In the words of one social psychologist (Kohn, 1977: xxxiv):

> ". . . parents train children for the world as they, themselves see it, and this training tends to equip the children for the parents' station in life, thus serving as a brake on mobility."

This view of the transmission process, coupled with the theory that the poor and the welfare dependent have deviant values, forms a cornerstone for both the culture of poverty and welfare dependency theories. Both poverty and welfare dependence are seen as persisting from one generation to the next because they foster the development of deviant values in parents, who in turn pass the deviant values on to their children, preparing them only for a similar life of poverty or welfare dependency.

When applied to arguments about a culture of poverty and welfare dependency, the multidimensional perspective on motivation forces us to go beyond the simple question of whether the poor differ from the nonpoor in some global psychological sense. Rather, we need to know in what aspects of motivation the poor differ, and which aspects of motivation, if any, are instrumental in making it possible to escape poverty and the need for welfare. The intergenerational implications force us to examine these issues across as well as within generations. This theory suggests not one but several "motivational" routes out of poverty. Basic motives may be the only possible psychological resource for facilitating the mobility of certain subgroups of the poor, such as minorities, who face labor market obstacles and thus have low expectancies. In this case, motivation may influence behavior even under conditions of constraint but it does so largely through the achievement motive, through the sheer ambition to succeed. The expanded meaning of motivation, which includes both expectancies and motives, should operate among the more advantaged subgroups of the poor, for whom increasing market opportunities give rise to the expectation that personal actions will be effective.

The Empirical Components of Motivation

The PSID has measured both the motive and the expectancy components of motivation. Among motives, there are both negative and positive ones. The negative motive, fear of failure, was measured by three items on how people react to tests. Those with a high degree of fear of failure are uneasy or upset about taking tests, their hearts beat faster when they take tests, and they worry about failing tests. The positive motive, need for achievement, was measured by four items comparing the importance of challenge to affiliation and to power. The questions asked whether respondents would prefer to do better or to have a lot of friends, whether they would prefer a job requiring thinking or one with nice co-workers (challenge vs. affiliation), whether they prefer doing better or having their views respected, whether they prefer a job with thinking or a job where they have say (challenge vs. power). Generalized expectancies were measured by a "personal efficacy" index of two items asking whether the respondent was pretty sure life would work out the way he/she wanted and could usually carry out plans the way she/he expected. Unfortunately, the PSID data do not contain expectancy measures that are specific to the labor market or to the welfare system. We also included three items measuring future orientation since those who view attitudinal differences as instrumental in causing poverty often cite present-orientedness as an unproductive trait of the poor. The future orientation items asked respondents whether they planned ahead, saved for the future, and thought a great deal about things that might happen in the future.

Several basic questions can be addressed with the PSID data. A first and primarily descriptive question is whether the poor and nonpoor differ in the various components of motivation. Finding the expected differences would confirm the results of other work done on smaller and less representative samples but would not adequately address a second and crucial question: do these different components of motivation cause people or family generations to enter or remain in a situation of poverty, and to become or stay dependent on welfare?

Motivational Differences Between the Poor and the Non-Poor

A cross-sectional look at the motivation scores for heads of families at various income levels shows most of the expected differences. Compared with those in higher strata, heads of families below the poverty line had lower scores on positive motives, a greater fear of failure, lower expectancy scores and less orientation toward the future. Zero-order correlations were modest (generally below .30 in absolute value). There were no systematic differences in these patterns across the four subgroups of the study: white males, black males, white females and black females. That these cross-sectional correlations were consistently positive is in accord with many cross-sectional studies and establishes confidence in the motivational measures available in the PSID. A more thorough examination of the measurement properties of the indices we use reinforces this view.

Findings

The psychological theories that have guided our work emphasize the distinction between basic motives and expectancies-- the former are presumed to be relatively stable personality characteristics and not amenable to change while the latter are much more likely to respond to intervention programs. In our empirical work, however, we find no more than modest and usually insignificant effects of the basic motives on economic outcomes and, with one somewhat puzzling exception, no consistent effects of expectancies on outcomes. In addition, we find that short-run changes in our expectancy measure are significantly predicted by various economic and noneconomic events for most of the groups we analyze. Thus expectancies indeed appear to be related to economic outcomes, but the causation most likely runs from the outcomes to the expectancies rather than in the reverse direction.

What of the limited evidence on the effects of the basic motives? Our short-run analysis shows that there are consistent effects of only one motivational component, and for only one of the subgroups studied: black female household heads with a greater orientation toward challenge had higher earnings growth, brought about mostly by increased labor supply, and had a higher than average likelihood of marriage. These black women are the most constrained group studied and for them it appears that sheer determination can overcome economic and societal obstacles. Similar short-run effects were not observed for any of the other groups, either overall or within the most heavily constrained subsets of them.

The motivational orientation of black parents was also somewhat instrumental in explaining the early career successes of black men and, to a lesser extent, of black women. Young black men whose parents were more oriented toward challenge and power and less oriented toward affiliation attained higher levels of economic status. Young black men face severe labor market constraints and it is here that the determination of parents to strive for success over popularity or friendship matters the most. Thus again it is the most constrained environments that produce the strongest links between the basic motives and success of the offspring. Young black women were generally more successful if their parents wanted them to be independent rather than conforming to authority or being affiliative. This is in accordance with the literature pertaining to the socialization of black women.

As for expectancies, there was simply no consistent evidence that the short-run economic status of the low income groups studied responded to expectancies. The only consistently significant effect was an intergenerational one, in which the economic attainment of white women increased with higher levels of parental efficacy. A possible explanation, admittedly post hoc, would be that efficacy plays a role in economic status only when there are both opportunities to seize and major decisions to be made. Whereas young men are making somewhat limited choices about what type of job to have, young women are deciding whether to have a career or not. This distinction, however, holds more for whites than blacks.

We find that across generations there is substantial upward mobility among the poor. Most of today's poor children are not tomorrow's poor adults. But does the same hold for reliance on welfare? Welfare dependency theories would lead us to believe that welfare dependence is transmitted from generation to generation by parents passing on poor attitudes. While being raised in a welfare recipient parental home does lead to some increased likelihood of becoming a welfare recipient adult, parental attitudes play little role in this transmission process. In addition, it is the likelihood of welfare receipt but not the level of welfare dependency that is generally transmitted from generation to generation.

Implications

It is important to place these findings in the context of other empirical studies. The lack of strong links between motivational components and economic outcomes is quite consistent with a great deal of past research that has been conducted with the PSID concerning attitudes and poverty dynamics. Other studies based on small areas or individual cases have often come to different conclusions, but have not been sufficient for testing these relationships either with panel data or with reliable intergenerational data. Our cross-sectional findings are indeed consistent with these studies, but our more rigorous longitudinal search for links between motivational components and outcomes casts doubt on the strength of the cross-sectional findings.

Our few consistent results concerned the basic motives rather than expectancies. This is disappointing since motives are thought to be developed quite early and not very susceptible to short-term change. One could argue that we found few effects for the expectancy measures because we were forced to rely on the "natural experiments" provided by survey data. As a result, our analysis may be a poor guide to what might happen in an intervention setting designed to increase the sense of personal effectiveness of the subjects. This may be true, but there is no basis in our analysis of the survey data to encourage speculation that intervention programs would be very successful.

While this research was focussed on the role of motivational components, our ultimate concern, of course, is with economic outcomes. Thus it is important to place the findings of marginal effects of attitudes in the context of the larger picture of what we know about these outcomes. The most dramatic findings from longitudinal studies are of the variability of economic status for most low income families. Many individuals and families succeed in climbing out of poverty or in getting off the welfare rolls each year, and our investigation has really been directed at assessing whether many of those who succeed have very different motivational orientations from those who do not succeed. Many highly motivated people do indeed succeed in pulling themselves out of poverty. But almost as many of the apparently unmotivated also succeed. Opportunities provided by more schooling or by living in areas of high employment growth were more consistently significant in producing higher than average short-run improvement than were positive attitudes.

By the same token, many children from low-income families were not found to repeat the economic failures of their parents, and whether or not they indeed were more successful had little to do with the psychological characteristics of their parents. This is not to say that parental background does not influence children's attainments. We clearly see that parents' education has a positive influence on the young adult's educational attainment, which, in turn, increases chances of economic success. While there are some effects of parental attitudes on children's attainment, the effects are neither consistent enough nor powerful enough to indicate that parental attitudes are the major obstacle to economic mobility across generations.

In sum, the attitudes we studied do not seem to be the crucial element in the determination of economic status. This leads us to search for other factors. Although the models we estimated were formulated as specific tests of the motivational items rather than any other single group of factors, our results do provide some grounds for speculation.

Areas for Further Inquiry

Since young adults are at a crucial stage of life when the decisions they make will determine the course of events for some time to come, they are a critical group in our search. For them, parental background does play a role in determining economic attainments. Parents' education is important. There may well be other aspects of parental background that are important but additional factors have not yet been adequately explored. The background factors examined in this study account for only about one-third of that variation in men's earnings which, according to sibling studies, is due to family background factors. In addition some of the aspects of parental background that we included as control variables merit closer scrutiny. More exact measurement of one of the factors, that of coming from a mother-only home, would clarify the role of this particular factor in the determination of children's economic attainments. We find little direct effect of this factor except a detrimental effect for black females from poor parental backgrounds. We have not yet differentiated the effects of a mother-only home by duration of time spent in this type of family situation, and duration may be important; it may be that spending a long time in a mother-only home (as some black and fewer white children do) is necessary before there is a lasting effect on children, and the effect may be stronger for females than for males. If so, this is important to know.

The early decisions of young adults also merit closer scrutiny. Both early marriage and early childbirth influence the subsequent economic attainments of young adults. For women these events have detrimental effects by decreasing educational attainment. For black men, having a child born to them in the teenage years and remaining with that child has a direct negative effect on their subsequent economic status. The processes leading up to teenage marriage and childbearing are not well understood and merit further research.

CHAPTER 2

THE PERCEIVED RELATIONSHIP BETWEEN ATTITUDES AND ECONOMIC STATUS[1]

The presumption that there is a causal link from attitudes to success has influenced policy for the last two decades. Theories about the nature and the strength of this relationship have varied somewhat during this period; however, the basic thesis persists and continues to stir up controversy. This hypothesis has been studied fairly extensively, yet there is little consensus about the causal relationship between attitudes and poverty and almost no information on how one can be used to change the other.

The Culture of Poverty

The culture of poverty argument was prominent in the late 1950's and 1960's. This argument emphasized the deviancy, permanency and immutability of the poor's cultural characteristics. As the Council of Economic Advisors (1964) put it "The poor...are isolated from the mainstream of American life and alienated from its values."[2] Perhaps the four best known proponents of this perspective are Harrington, Lewis, Miller and Banfield. While these authors differed a great deal, they were alike in emphasizing that poverty was more than a lack of resources. Instead, low income is "only one feature of a complex and ramified lifestyle", many of whose component characteristics (e.g., dependency, illegitimacy, instability, etc.) were themselves problematic (Miller, 1958, 1965).[3] According to this view the poor (or some subgroup of the poor) had multiple problems and were characterized by psychological deficits and behavioral deviancy.

Prominently mentioned among such psychological deficits were a present-time orientation and an inability to defer gratification. Other characteristics ranged from resignation, fatalism, a high tolerance for pathology, and a disorganized and anarchic way of life to violent and sometimes criminal behavior. Harrington, reviewing several studies on psychiatric disorders--the most prominent one carried out by Hollingshead on class and mental illness in New Haven--stressed the greater incidence of serious mental illness among the poor. Banfield (1970) noted that lower class life is extraordinarily violent. Miller (1958) claimed that "the commission of a wide range of illegal acts is either explicitly supported, implicitly demanded by, or not materially inhibited by factors relating to the focal concerns of lower class culture." Miller's work is based on his participation-observation studies of trained social workers who observed and talked to corner group units of adolescents in a slum district of a large eastern city for a ten to thirty month period. The analysis of the data from this study led Miller to describe six major concerns of lower class culture: trouble, toughness, smartness, excitement, fate and autonomy.

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[1] Much of this literature review is excerpted from work by Mary Corcoran, Greg Duncan, Pat Gurin, and Janet Moore.

[2] This is cited in Patterson (1981:116).

[3] See Moore (1983) for a good summary of Miller's work.

These authors also tended to agree that economic resources and increased opportunities could not alone eradicate these deficits and deviancy. Banfield (1970:125) argued this case with particular strength:

> The view to be taken here is that...there is indeed such a culture of poverty but that poverty is its effect rather than its cause. Extreme present-orientedness, not lack of income or wealth, is the principal cause of poverty in the sense of "the culture of poverty."[4]

Lewis' view was more sympathetic to the poor; he believed that the culture of poverty was originally the result (not the cause) of the poor's response and adaptation to their economic situation. But he also argued that once begun, the culture tends to perpetuate itself.[5]

Lewis and Harrington emphasize that the culture of poverty persisted across generations as well as within generations. According to Lewis (1968a:50):

> Once it (the culture of poverty) comes into existence, it tends to perpetuate itself from generation to generation because of its effects on

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[4] This is as cited in Nathan and Carson (1982:15).

[5] Lewis, in other places, seems to repudiate this interpretation of the culture of poverty and instead argues that the culture of poverty is adaptable. There is a genuine contradiction in Lewis' work between these two perspectives.

> children. By the time slum children are age six or seven, they have usually absorbed the basic values and attitudes of their subculture and are not psychologically geared to take full advantage of changing conditions or increased opportunities which may occur in their lifetime.

Harrington warned that the U.S. was in very real danger of having "a hereditary underclass."[6]

Criticisms of the Culture of Poverty

These culture of poverty arguments were vigorously opposed by a number of scholars in the 1960's and early 1970's. Anthropologists argued that the concept of culture was being incorrectly applied.[7] Patterson, (1981:123) summarized this argument as follows: "Culture was not something in itself, which could be isolated from the socioeconomic setting. Nor were those people who were seen as being in the culture of poverty unchanging mirror images of some culture. As individuals, people were never predictable; their values and behavior changed as they aged and as circumstances affected them."

Sociologists and psychologists also disputed the "culture of poverty". Hylan Lewis argued that "it is important not to confuse basic life chances and actual behavior with basic cultural values and preferences".[8] Rainwater (1968) differentiated between the categorical and existential aspects of culture, and argued that the poor share with other Americans beliefs about what ought to determine success in life while being less able to actualize these categorical cultural imperatives in their own existence. Gurin and Gurin (1970) argued that simplistic applications of the "culture of poverty" theory ignore the role played by expectancies about constraints imposed by the social system.

These critics also argued that the evidence provided by proponents of the culture of poverty view was by no means unambiguous. Lewis's book La Vida, for instance, grew out of Lewis's anthropological case studies of poor Puerto Rican families living in slums. In La Vida Lewis describes in great detail the lives, attitudes and values of one of these families, the Rios family. But Lewis himself admits that the Rios family is not a typical poor Puerto Rican family, but instead is an extreme example. (See Nathan and Carson, 1982:13). In addition, as noted by Nathan and Carson, Lewis himself points to many positive traits of the Rios family--"fortitude, vitality, resilience and ability to cope with problems.." that seem inconsistent with Lewis' own characterization of the culture of poverty. Finally, it is not at all clear that results from a study of the Puerto Rican slums should be generalized to draw conclusions about the U.S. poor. Lewis argues that probably only one fifth of U.S. poor are trapped in a "culture of poverty." But nowhere does he present the reasoning on which this figure is based. The Hollingshead study in New Haven has been criticized for a variety of methodological and interpretive errors (see Miller and Mishler, 1964). Perhaps its most serious problems are its cross-sectional nature and lack of national representativeness. Even if the incidence of mental illness and psychosis were higher among poor people than the nonpoor in New Haven, such a study cannot tell us whether this occurs because poverty puts more stress on people, because incidents of psychosis are more frequently reported among the poor, because mental illness leads to poverty or because the poor are psychologically impaired in some fairly permanent fashion. Miller's work on delinquents, like the studies by Lewis and Harrington, was based on a small sample, applied only to those in a specific locale, and not truly longitudinal.

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[6] This is as cited in Patterson (1981:124).

[7] See Patterson for an extended discussion of this issue. The above remarks are a summary of his discussion.

[8] This is as cited in Moore (1983).

Motivational Underpinnings

On both sides of the debate the most serious problem was the extreme vagueness of the culture of poverty argument. In general, it suggested that (1) the poor hold distinct values, aspirations, and psychological characteristics which, (2) inhibit their achievement and produce behavioral deviancies which keep them poor, and (3) persist not only within but across generations through socialization of the young. Neither the proponents nor opponents offered a well articulated motivation theory about the impact of motivation on behavior. Such a theory is needed to delineate which values and features of individual personality play a causal role in achievement, income attainment, and behavioral deviancy, thus perhaps constituting the "critical" differences between the poor and non-poor. Without an explicit theory of motivation, most studies on both sides of the debate simply compared the poor and non-poor, usually in some local region, on atheoretically chosen traits or behaviors and then concluded that the differences were either large enough or too small to support the culture of poverty argument.[9] The lack of an explicit concern with motivation not only promoted haphazard selection of comparison dimensions but also left the impression, almost always without laying out and testing an explicit causal model, that psychological differences between the poor and non-poor were necessarily implicated in poverty. Differences in values or in impulse control, even if substantial, are pertinent to the debate only if they cause rather than result from income differentials. To date there is little to suggest that this is the case.

The Underclass and Welfare Dependency Theses

More recently, "culture of poverty" arguments have given way to discussions about the underclass and welfare dependency, and arguments which link persistent economic need with crime and violence. A prime example is Auletta's three-part New Yorker series and recent book, both entitled The Underclass. Much of Auletta's work portrays the experiences of participants in supported work programs run by the Manpower Demonstration Research Corporation (MDRC) in New York City and Appalachia. To be eligible for the New York City program, one had to be a recently released ex-offender, a recent ex-addict, a long-term welfare dependent mother, or an unemployed school dropout. Auletta also interviewed "policy experts" and reviewed much of the poverty literature.

Auletta claims that there is fairly broad consensus among students of poverty that an underclass exists. He argues that this underclass "suffers from behavioral as well as income deficiencies", "operates outside the mainstream of commonly accepted values" and that "it is often anti-social and violent."[10] He characterizes members of the underclass as falling into one of four distinct groups: hostile street criminals, hustlers, welfare dependent mothers and the traumatized. He argues also that "members of the underclass are responsible for a disproportionate amount of the crime, the welfare costs, the unemployment, and the hostility that beset many American communities."[11]

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[9] Moore (1983) presents a good summary of the empirical studies.

Auletta's reliance on case studies of MDRC participants has resulted in a very compelling and often compassionate portrayal of very troubled individuals. But his work has many of the limitations of case studies. Most importantly Auletta's generalizations about the underclass seem guided by his experiences with participants in the MDRC supported work programs. His four categories of the underclass directly parallel the four eligibility criteria for the MDRC life skills class.[12] MDRC program participants were actually selected on the basis of criminal records, drug addiction and long-term welfare dependency, and Auletta strongly emphasizes the deviancy and violence of the underclass. The MDRC basic skills class was made up of very different kinds of people, so it is not surprising that Auletta's descriptions of the underclass' psychological characteristics seem contradictory at points. For example, the passivity of welfare mothers and the aggressive, acting-out behavior of ex-offenders are both emphasized. Finally, Auletta assumes that the very different kinds of people in the MDRC program are examples of the "underclass" syndrome. Yet one could equally argue that the behavioral and psychological deficits of criminals and drug addicts ought not to be equated with those deficits of long-term welfare mothers.

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[10] These quotes are taken from Auletta (1982:91,92,96,99).

[11] Auletta (1981:105).

[12] Auletta (1981:63) cites the following criteria for eligibility in the MDRC skills classes: "a person must satisfy one of four sets of criteria, be an ex-offender . . .; be an ex-addict . . .; be a female who has been unemployed and on welfare for the preceding thirty-six months, and has no children under the age of six; or be a youth between the ages of seventeen and twenty who has dropped out

Auletta's underclass argument raises many themes hotly debated in the "culture of poverty" controversy. Auletta emphasizes the psychological deficits, behavioral deviancy and multiple problems of a subset of individuals, and the extreme difficulty of rehabilitating and/or integrating these individuals into mainstream society. In his discussion of welfare dependency, Auletta emphasizes the intergenerational transmission of dependency.

Auletta's concern that long-term welfare dependent mothers are part of a new and growing underclass is shared by many academicians and policy-makers. Anderson, former domestic policy advisor to Reagan, claims:

> In effect we (through the welfare system) have created a new caste of Americans--perhaps as much as one-tenth of this nation--a caste of people free from basic wants but almost totally dependent on the state, with little hope or prospects of breaking free. Perhaps we should call them the Dependent Americans (1978:56).

Bernstein (1982:142), former Commissioner of New York City's Human Resource Department and former state Deputy Commissioner of Social Services, states in reference to female-headed families: "We are indeed in danger of creating a permanent underclass in the country". George Gilder (1981), in a book lauded by David Stockman as "Promethean in its intellectual power and might", expresses considerable dismay about what he calls the "welfare culture."

Arguments about welfare dependency do not inevitably emphasize psychological deficits and deviancy. Anderson, for instance, argues that the high marginal tax rates on wages implicit in the welfare system are destructive to incentives for the poor to help themselves.[13] Implicit in Andersons' argument is the notion that reducing these marginal tax rates would reduce dependency.

But many discussions of welfare dependency do emphasize the psychological deficits, helplessness and deviant behavior of welfare dependent mothers and their children. Bernstein, for instance, in a series of books and articles about

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of school (half of such dropouts must be delinquents)." Compare these to Auletta's four categories of the underclass: hostile street criminals, hustlers, welfare dependent mothers and the traumatized.

[13] Anderson does suggest that work disincentives of high tax rates may be more serious for poor people, citing Banfield's observation that the poor do not gain the intrinsic satisfactions from work that the rich do.

welfare argues very strongly that welfare (for a subset of recipients)[14] has fostered dependency instead of reducing it, has encouraged the breakup of families, has weakened the sense of family responsibility, has led to a rejection of the work ethic and has caused children raised in welfare-dependent homes to become dependent, lack a work ethic, not take responsibility for their own children, and engage in anti-social behavior.

Gilder, like Bernstein, sees family disorganization as a key problem in the welfare culture. Gilder's thesis about welfare dependency is predicated on alleged sex differences in time horizons and in familial roles. Gilder (1981:70) argues that "Civilized society is dependent upon the submission of the short-term sexuality of young men to the extended maternal horizons of women."[15] Thus since welfare provides poor women and children with a source of income, poor men will not be forced to marry, to remain married, or to work in order to support their children. As Gilder (1981:113) summarizes this view: "His (poor man's) response...is that very combination of resignation and rage, escapism and violence, short horizons and promiscuous sexuality that characterizes everywhere the life of the poor."

What has been termed a "class-related intergenerational pathology hypothesis" (Macaulay, 1977:50) is associated with views such as those of Bernstein and Gilder. The hypothesis maintains that welfare dependency is transmitted from one generation to the next, and the transmission takes place through a pathological linkage in which traits such as autonomy, independence, ambition, and coping are not reinforced during a childhood on welfare. This hypothesis thus implies that adults with a childhood background of long-term welfare dependency will be more likely to be welfare dependents themselves because their parents are less likely to have instilled the proper attitudes in them.

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[14] She estimates that about one-quarter of all welfare recipients fall into this category, but, like Lewis, does not explain what this statistic derives from.

[15] Gilder expands on this in some detail in his book Sexual Suicide. This, in turn, will promote psychological problems and antisocial behavior among the displaced male providers.

Criticism of the Underclass and Welfare Dependency Theses

The underclass and welfare dependency arguments are as vague as the earlier culture of poverty argument. Allegedly underclass and welfare dependent individuals possess a set of psychological deficits which produce behavioral deviancy and inhibit achievement. These psychological deficits persist within and, in the case of welfare dependency, across generations. But nowhere is a well articulated theory of motivation presented which delineates the values and personality traits which play a causal role in economic achievement and behavioral deviancy. Indeed, given the very different kinds of people and problems Auletta lumps together in the underclass--criminals, addicts, welfare mothers and the mentally ill--it is difficult to see how one could develop a consistent theory to cover all these groups.

Moreover, the proponents of the underclass and welfare dependency theses fail to provide a strong evidential base for their arguments. Take, for instance, Auletta's claim that the underclass is a new, large and growing group. Auletta presents two quite different kinds of evidence to support this assertion. First, he cites Levy's estimate of long-term poverty. Levy (1977) estimated that 9.5 million people in 1972 lived in households headed by a non-elderly, non-disabled person, and where the total family income less welfare payments was less than the poverty line in 1967 and in two of the years 1968-1971.[14] Auletta (1981a:95) then states that there is broad agreement that "this group does threaten to become something new to America; a long-term underclass." Yet Levy measures only long-term poverty and not behavioral deviancy. Auletta then presents a number of other figures related to his behavioral definitions--the mentally ill; ex-drug addicts; teen-age mothers; etc. Some of these estimates are quite dubious--e.g., a New York psychiatrist's estimate that 30-35% of the underprivileged are "sick" and 30-35% are "the criminal element". By linking his categories of underclass individuals with Levy's estimates of long-term poverty, Auletta effectively equates the behavioral deviancy with long-term poverty.

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[14] Levy's estimates were based on a nationally representative longitudinal sample of American families--the Panel Study of Income Dynamics (PSID).

Evidence On the Relationship Between Attitudes and Economic Status

Evidence that explicitly links attitudes to economic status is rather sketchy. While there is some evidence that economic status as indicated by employment status affects people's self-attitudes (Cohn, 1978; Pearlin, et.al., 1981; Elder, Liker, and Jaworski, 1983), the reverse causal association is more doubtful. In addition, while there is evidence of class differences in parental values and that child-rearing practices vary with parental values, the crucial link between parental values and children's economic attainments as adults has not been firmly established. This also applies to the link involving transmission of welfare dependency status across generations.

Regarding the causal link between a person's attitudes to his economic status, Andrisani (1978) has extensively examined the relationship between personal efficacy and economic status using the NLS for white and black men--both young and middle-aged--and mature white and black women (between 30 and 50). He reports many regression analyses which show effects of efficacy on economic status. However, the most consistent results come from cross-sectional equations for which the causal sequence is ambiguous. More statistically rigorous analyses of personal efficacy effects on subsequent two-year changes (1969-1971) in occupational status and personal earnings are weaker and less consistent. Personal efficacy has a significant effect on change in occupational status for young men, black and white, but not for black older men or black older women. Personal efficacy has a significant effect on change in annual earnings for older men, black and white, but not younger men. In all but one case, the signs on coefficients are as expected, and taken together these results are more supportive of efficacy effects than comparable PSID analyses, including those presented in this report.

Attempts to replicate Andrisani's findings using the PSID have met with mixed success. When Duncan and Morgan (1981) selected a specific subsample of the PSID that most closely resembled the NLS sample and the time period Andrisani examined, the results were indeed similar to those arrived at by Andrisani. More generally, however, the PSID measures of personal efficacy have been included in many analyses of subsequent economic change for many population subgroups and with few other exceptions yield null findings--efficacy does not influence subsequent mobility (Duncan and Liker, 1983). The discrepancy between results from these two data sets has been debated through a series of published notes (Andrisani, 1981; Duncan and Morgan, 1981) with no resolution to date. It has been noted that the NLS includes a more extensive, richer set of measures of personal efficacy, and Andrisani (1981) argues that the PSID measures are inadequate. On the other hand, the PSID includes a general population sample with oversampling of the poor, while the NLS comprises a number of more specialized population subgroups including specific age groups.

Regarding the intergenerational effects of parents' attitudes on children's economic status as adults, there has been extensive research on pieces to the puzzle. Kohn (1977), for example, finds that parental values relating to the importance of self-direction versus conformity to external authority vary with social class. He further points that related research is so extensive that it is difficult to cite. This other research concerns the relationships between social class and aspects of social orientation and self-conception such as authoritarian conservatism, self-esteem, and Rotter's (1966) concept of internality or externality of locus of control. A further piece in the puzzle is the evidence showing that child-rearing practices vary with parental values or with class. Kohn (1977) shows evidence that class differences in valuation of self-directness versus conformity to external authority influence parents' disciplinary practices and the allocation between the mother and father of responsibility for providing support to and imposing constraints on their children. Gecas and Nye (1974) also show class differences in parental response to their children's misbehavior.

However, as Kohn (1977) points out, there is not much evidence about the crucial links between parents' values and childrearing practices and the personality and behavior of the child. Further, while there is evidence that links children's aspirations and attainments, the role parents' attitudes play in this path or the broader role of parents' attitudes in children's attainments is relatively unexplored.

Literature on educational and occupational attainment (Sewell and Hauser, 1976; Alexander and Eckland, 1974; Sewell, Haller and Ohlendorf, 1970; Sewell, Haller and Portes, 1969; Sewell and Shah, 1968, 1967) shows evidence of links between the aspirations of white youths and their subsequent attainments. White youths' educational and occupational aspirations are positively associated with their subsequent achievements in the form of educational attainment, socio-economic status, and earnings levels. In these models, "significant others" are found to influence the youth's attainment both indirectly, through the youth's aspirations, and directly as well. These effects, however, vary with the sex of the child (Sewell and Shah, 1968, 1967; Alexander and Eckland, 1974; Sewell, 1971). Women appear to be disadvantaged relative to men in levels of parents' encouragement and their own level of aspirations. Educational aspirations and attainment are more closely tied to ability for sons than for daughters. Father's education is more important than mother's education for sons, whereas the reverse holds for daughters. In addition, there is a direct negative effect of being female on educational attainment that is independent of ability, standard background factors, encouragement by "significant others," and their own aspirations.

Since these studies of status attainment involve interviews with the child but not the parents, they are unable to examine the links between parental motivation and the child's attainment. One study (Kiker and Condon, 1981) does examine this linkage, finding a positive effect of the father's achievement motivation on a young man's achievement motivation, which in turn has a positive effect on the young man's earnings. This work examines one of the many possible forms of parental motivation, however, and does not investigate the relationship for women, so it is just a beginning in uncovering linkages between parental motivation and children's economic attainment. In addition, the overall effect of parental motivation on earnings is not reported.

Whether welfare dependency during childhood encourages welfare dependency during adulthood is also a topic that has not been thoroughly explored, although there has been some investigation of the issue. Macaulay (1977), for instance, cites several attempts to answer this question, but all using inadequate data. She notes that several studies of welfare recipients have shown "only a minority of welfare recipients whose parents were longtime recipients" (Macaulay, 1977:48). But these cross-sectional studies do not tell us how many non-recipients had parents who were long-term recipients.

More recently, intergenerational longitudinal data covering both welfare recipients and non-recipients have been used to address the issue; however, the time span covered by the data has been of insufficient length to provide a very representative sampling of the offspring in their adult years. One relevant work is a research report by Levy (1980). Levy finds that there is an element of intergenerational welfare dependency among young women in 1976 who were children in 1968. Using the same dataset, the Panel Study of Income Dynamics, Rein and Rainwater (1978) reach the conclusion that "the panel data seem to provide no support for the hypothesis that the experience of growing up in a welfare family per se makes men or women more likely to go on welfare themselves when they set up their own households" (Rein and Rainwater, 1978:519).

Empirical work has also been done on the pathological aspect of class-related intergenerational transmission hypothesis. Macaulay (1977) reviews the evidence from several studies and concludes that welfare children are not destined for perpetual welfare dependency or at least for poverty because of mental or moral inadequacy. Schiller (1973) also notes evidence running contrary to the notion that welfare dependency promotes development of anti-social and non-achievement oriented attitudes. According to Schiller: "Confronted with few opportunities to achieve upward mobility themselves, welfare mothers place added emphasis on their children's future. In fact welfare mothers express a strong desire for both financial and social service assistance in preparing their children for a future they hope will be brighter" (Schiller, 1973:27). This work, however, provides no link to the attainments of the children during adulthood.

Policy Implications of the Role of Attitudes in Economic Status

Cultural perspectives see poverty as self-reinforcing, self-perpetuating, and divorced from current realities. This strongly suggests that intervention strategies which focus only on economic resources and expanding opportunities will fail. One needs to transform the poor's psychological traits. Miller, for instance, argued that

> The poor...can be accorded only one possible future. Their way of life must be liquidated, and they themselves transformed into something different, and as efficiently as possible.[17]

Thus, welfare, job training or even job opportunities will not alter poverty unless we also eradicate those psychological traits which bar the poor from utilizing available opportunities.

This is quite discouraging to those who wish to eliminate poverty since these cultural theories do not identify the personality traits which must be altered if the poor (or welfare dependent) are to be motivated to join mainstream society. Even if we knew what personality traits should be targeted, the picture would still be bleak. We know little about how to alter personality structures directly. Psychological and counseling techniques tend to be costly, to have low success rates, and to be oriented toward clients with middle and upper class values. The problem is even more severe for the children of the poor. If Lewis is correct, we may need to intervene directly in the early family socialization of these children. This would presumably be morally unacceptable for the majority of U.S. society. Thus Banfield may be correct in suggesting that some subset of the poor cannot be reached by public policy (Nathan and Carson, 1982:15).

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[17] This is cited in Moore (1983).

This intractability could lead to a laissez-faire or even punitive set of policies toward some subset of the poor. If some indigent people can be helped by public policy only at exorbitant cost and with a high probability of failure, then it might be sensible public policy simply to ignore this group's plight and instead to concentrate on other poor groups.

If we believe this culturally distinct and impoverished group has radically different values and lifestyles from those of mainstream society, we might be tempted to blame these people for their problems. If we further believe that some subset of this group is violent and/or criminal, we might concentrate on protecting society. As Sowell argued to Auletta:

> We should shift concern toward people who are trying to do the right and decent thing and make sure they don't lose. There are people whose problems we can't solve, but we can stop them from causing problems.[18]

Resolving this disagreement about the nature of poverty is of key importance for effective anti-poverty policy. If poverty is simply a matter of inadequate resources and opportunities, then policy should concentrate on providing those resources and opportunities. If the poor have psychological deficits which hamper their escape from poverty, then a resource-oriented policy will be insufficient. If there are two different kinds of poverty, then we may need to target each with different policies.

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[18] Auletta (1981:154).

CHAPTER 3

THE MOTIVATIONAL INDICES

A major goal of the present research is to propose and test an explicit theory of the linkages between motivation and poverty dynamics. As explained in the introductory chapter, the theory of motivation that guides our work was put forth by Atkinson (1964) and was operationalized in early waves of the PSID by Veroff and his associates (1971). The key elements to the theory are the presumably stable basic motives of challenge, power and affiliation on the one hand and the more transitory expectancies on the other. Much of the recent empirical work on components of motivation has focussed on the role of expectancies. Our approach includes the expectancy measure of personal efficacy but also tests for the importance of the more basic motives as well as two other attitudinal items. The major issues that surround the selection and measurement of these attitudinal items are summarized in this chapter. Detail of the construction and measurement properties of the indices are given in Appendix A.

First, although the rationale and measurement properties of an efficacy index using items from the PSID have been well documented (Duncan and Liker, 1983; Lachman, 1983; Dickinson, 1972), there was some dissension about the measurement properties of the efficacy index (Andrisani, 1981). The debate over the comparability of the PSID efficacy index and measures Andrisani developed using the National Longitudinal Surveys is summarized in Appendix A.

Second, particularly in relation to women, for whom there is often a motive to avoid success (Horner, 1968), theorists have argued that the fear of failure prevents people from even attempting to take on challenging jobs. Measures of fear of failure included in the PSID were investigated by Veroff, et al. (1971) and used to augment the achievement motivation index.

Finally, culture of poverty theories suggest that the poor, unlike their more affluent counterparts who are able to delay gratification and plan for the future, are more attuned to immediate gratification and less apt to be oriented toward the future. This is largely an adaptation to the unpredictability that characterizes so much of their lives. A future orientation index has been used extensively in PSID investigations of income dynamics, but rarely with any predictive value at all.[19] Nonetheless, we took this opportunity to test this index systematically as a possible antecedent of economic success.

A detailed discussion of the measurement properties of these measures and the rationale for including specific items in indices is included in Appendix A. Additional evidence that these are valid measures is provided in the relevant sections of Chapters 4 and 5 where the correlations between the attitude and outcome measures are studied. All attitudinal items in the PSID were posed to elicit a yes-no or agree-disagree response. If respondents feel they fall somewhere in between and volunteer an equivocal response, their response is assigned one middle category. A positive response (possessing the attitude) is scored 1, an equivocal response .5, and a negative response (lacking the attitude) 0. The indices were constructed by averaging responses to individual items. The future orientation and fear of failure indices are each based on three averaged items. The future orientation items ask the respondent whether they "plan ahead", "save for the future" versus spend their money as they earn it, and "think a lot about things that might happen in the future." The fear of failure items are based on how people react to tests. Those scoring high on fear of failure tend to be uneasy or upset taking tests, their hearts beat fast when they take tests, and they worry about failing tests. The personal efficacy and achievement motivation measures are slightly more complicated; since they are central to the investigation their rationale is summarized here.

Prior analyses using the PSID were based on three efficacy items which ask respondents whether they "usually felt pretty sure their life would work out the way they wanted," "when they make plans ahead, do they usually carry them out," and do they "nearly always finish things once they start them." The first two items have been checked for construct validity by correlating them with the

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[19] See Duncan et al. (1983), Chapters 1 and 2 for a summary of these analyses.

Rotter I-E scale and they appear to be valid efficacy measures (Gurin et al., 1978). The "finish things" item has not been tested in this way and does not correlate highly with the other two "efficacy measures." We examined construct validity by correlating the three items with measures of economic status. The first two items correlated positively as expected, but the "finish things" item correlated either not at all or negatively with the status measures. On this basis, we constructed the efficacy index as the average of the first two items.

In addition to this index, a measure available only in 1972 asked respondents whether they "sometimes feel they don't have enough control over their lives." This measure did not correlate highly with the efficacy index (r=.10). However, since it seems to reflect an aspect of personal control we examined it as a separate predictor of changes in economic status.

The achievement motivation items in the PSID were developed by Veroff et al. (1971) and are based on the relative valuation of the various human needs described by McClelland and his associates (1961). These include the need for economic achievement (henceforth called challenge), the need for power, the need for affiliation, and, of relevance to the intergenerational analysis, the need for one's children to be self-directed. Two PSID items ask respondents whether they would prefer occupational challenge to having a lot of friends and two other items ask respondents whether they would prefer challenge to power. Although both sets of components deal with the need for challenge, it is not clear whether the two pairs of items can be combined along one dimension, since they each have a different baseline and choosing challenge over affiliation is likely to have very different consequences than choosing challenge over power. Therefore, we independently examined effects of a "challenge-affiliation" index and a "challenge-power" index which are each based on the average of two items.

Two PSID items are used in the intergenerational analysis to measure parents' preference that their children be self-directed: one item asks respondents whether they would prefer their child to "be a leader" or to "be popular with his classmates," while the other asks whether they would prefer their child to "be a leader" or to "do the work his teacher expects." The index is based on the average of the two items. The "power-affiliation" index is based on the average of two PSID items which ask respondents whether they prefer power (i.e., "opinion carries a lot of weight among people who know you" and "people like to go to you for advice on important matters"), over affiliation (i.e., "people like to live next door to you" and "you are fun to have at a party").

Only the personal efficacy and future orientation indices were included in several waves of the PSID. The achievement motivation and additional control measure are only available for 1972 and change scores for these measures could not be examined.

CHAPTER 4

INTERGENERATIONAL ANALYSIS

Introduction and Summary

Improvements in economic status may take years to materialize. This is especially true when the linkage between motivation and economic status is embedded in a complex structure of events, many outside the individual's control. With such "noise" from exogenous events, the full effect of motivation on economic mobility may come to bear only over an extended period, or even in the children rather than the parents, especially if parents discover that flexibility and new opportunities diminish with age, and consequently direct their efforts to helping their children succeed. To date little is known about the extent of economic mobility between generations and the role parent's motivations play in the economic mobility of their children.

This chapter seeks to document the extent of economic mobility from one generation to the next and to identify the factors that enhance or impede the economic attainments of young adults from poor parental families. The major focus is on the role of parental attitudes in the attainment process. We begin with the development of our analytical model, first providing a theoretical background and then describing the empirical specification. Next we describe the sample used for the analysis. We then examine the extent of economic mobility across generations. This includes a look at both income relative to needs and welfare status as indicators of economic position. We next describe the attitudinal measures used in the analysis, and examine how much poor parents' attitudes differ from those of nonpoor parents, and to what extent children's attitudes reflect those of their parents. We then focus on a set of regression results that form the core of the analysis. A variety of economic outcome measures are considered, culminating with welfare dependency. This topic merits special attention because of the concern that welfare dependency in one generation fosters welfare dependency in the next generation via the transmission of negative attitudes.

We find that there is a great deal of intergenerational mobility. Substantial upward mobility can be observed among young adults from poor backgrounds, and there is movement into poverty among young adults from nonpoor backgrounds. Yet while the majority of young adults from poor families move out of poverty as adults, young adults from poor backgrounds are still much more likely than those from nonpoor backgrounds to be poor as adults. Similar patterns of mobility emerge for welfare status. Thus, while the pattern of economic mobility from one generation to the next is more indicative of independence than of complete dependence between the status of parents and children, there is some dependency.

We investigate whether parental attitudes are a source of this dependency, with negative attitudes serving as barriers to economic mobility across generations. Poor parents do have different attitudes from those of nonpoor parents. In particular, they have lower expectancies as measured by personal efficacy, less of a desire for challenge rather than affiliation, and less of a preference for their children to be self-directed. The major question, however, is: Do parental attitudes systematically act as barriers to children's success? We develop a model of status attainment to answer this question, treating parental attitudes as one of several background characteristics predicting the economic attainment of the child in young adulthood. Estimation of this model involves a set of regressions that examine the effects of parental attitudes on a variety of outcomes for the young adult. We investigate possible differential effects for young adults of different races and sexes, and we allow for differential effects of parental attitudes according to the economic status of the parents. Results of this analysis indicate only scattered effects of parental attitudes on children's success: the effects vary widely with both the race and sex of the child. Parental expectancies are important only for young white women. Parental motives play the most consistent role in the economic attainments of young black men. In both cases, the effects operate in part through educational attainment, with the attitude affecting educational attainment, which, in turn, increases economic achievement. The race/sex differences in the effects of parental attitudes on the child's success may well reflect differences in the opportunity structure facing young adults. In order for parental expectancies to operate, the young adult may need both opportunities to choose from and major decisions (such as market career versus home career) to make, which is the sort of environment white women face. On the other hand, parental motives appear to have their strongest effect in an environment of very restricted opportunities, since they most consistently affect the attainments of black men.

To round out the picture of intergenerational transmission of economic status, we look in detail at the extent to which welfare dependency is passed from generation to generation. We find that while children from welfare recipient parental homes are somewhat more likely to be welfare recipients themselves, the degree to which children as young adults depend on welfare as the main source of their income is largely unaffected by the degree to which their parents depended on welfare. Parental attitudes play little role in what transmission of welfare status there is.

The Analytical Model

We rely on a model based on both the sociological approach to status attainment and the more recent economic modeling of intergenerational transmission of inequality to analyze the relationship between parental attitudes and intergenerational mobility. The statistical model is set in a recursive framework, where the level of economic achievement or attainment of the child as a young adult is regressed on parental background measures. Unlike other studies of this type, there is access to parental reports of family background which allows us to include parental attitude measures.

Expected Effects of Parental Attitudes

The development of hypotheses about the role of parental attitudes is most clearly seen in the economic framework underlying the empirical model. The framework we describe below draws heavily on the work of Becker and Tomes (1979) and Tomes (1981). Although parental attitudes are not directly incorporated in their models, the models contain an avenue through which the attitudes plausibly enter. Parental attitudes can be viewed as influencing the income of children via the transmission of the parents' orientation toward life. This involves direct transmission of the parental attitudes to the child. When attitudes detrimental to economic achievement are passed on to children, this can prevent their economic mobility when they reach young adulthood.

The economic model assumes a static world in which there is no uncertainty, with individuals living for two periods -- one period as a child and one as an adult. In this world, the utility function of the parents is assumed to depend on their own consumption, Z_t, and the aggregate permanent income of their children, I_{t+1}. It is the level of the children's income and the way in which parental attitudes affect this income that we are most concerned about. To discover the way in which parental attitudes operate, we must develop the model further.

One constraint that the parents face is a technical one, reflecting the relationship between children's income and the various sources of capital the children have to work with. One source of capital children have is the capital they are endowed with, e_{t+1}. Their endowed capital can be broken down as follows:

$$(1) \quad e_{t+1} = hA_t + he'_t + o_t + v_{t+1}$$

where A_t is a form of parental endowment reflecting the host of attitudes held by the parents, e'_t is all other forms of endowments of the parents, h measures the fraction of the parents' endowments transmitted to children, o_t reflects the influence of the "social capital" of other families or culture, and v_{t+1} is the exogenous component of the endowment of children. Thus the attitudes of the parents are viewed as an endowment which is transmitted to children, affecting the level of capital children use in earning income. We would expect h to be positive, and less than one, with the attitudes of the children being similar to those of their parents. These attitudes would include personal efficacy, future orientation, preferring one's child to be self-directed, choosing challenging rather than affiliative or power outcomes, choosing power over affiliation, and the fear of failure. With the possible exception of the last one, each of these attitudes would reflect a positive form of endowed capital.

There are other forms of capital that children use to produce income. One is a "capital gain" due to luck in the market, u_{t+1}. The other is capital produced by parents investing in children, either by augmenting their human capital or by transferring nonhuman capital in the form of material wealth. Investments in human capital can take the form of either market-purchased goods, such as tuition, or home-produced inputs, such as the time of parents. Like Becker and Tomes (1979), we assume that all capital invested in children is homogeneous and that a single aggregate y_t is the total amount invested in children.

The technical relationship between children's income and the various sources of capital the child has to work with serves as a constraint the parents face. This constraint, which sets the income of children equal to the sum of income from their endowed capital, and income due to market related luck, is specified in the following equation:

$$(2) \quad I_{t+1} = w_{t+1}(y_t + hA_t + he'_t + o_t + v_{t+1} + u_{t+1})$$

where w_{t+1} is the value to children of each unit of capital.

In order to produce investments in children, the parents must use goods, time, or money, each of which will cost them something in the way of forgone consumption. Thus the parents face the following budget constraint:

$$(3) \quad Z_t + p_t y_t = I_t$$

where p_t represents the cost in forgone consumption of each unit of investment and I_t is the parents' income. Parents also face the following definition of the rate of return on their investments:

$$(4) \quad p_t y_t = \frac{w_{t+1} y_t}{1+r_t}$$

where r_t is the rate of return per generation.

The constraints the parents face can be combined into one constraint that reflects family income. Parents maximize their utility with respect to their own consumption, Z_t, and the income of the children. If the utility function is homothetic, so that the fraction of family income spent investing in children is the same at all income levels, the maximization process produces the following demand function for the income of children:

$$(5) \quad I_{t+1} = a(1+r_t) I_t + a w_{t+1} h A_t + a w_{t+1} h e'_t + a w_{t+1} o_t + a w_{t+1} v_{t+1} + a w_{t+1} u_{t+1}$$

where a is the fraction of family income spent on children.

The demand function for children's income suggests that the effect of parental attitudes operates through capital transmission. From equation (5) we can see that increases in parental attitudes, A_t, result in increases in children's income when there is positive transmission. Higher levels of efficacy and future orientation, preferring one's child to be self-directed, choosing challenging rather than affiliative or power outcomes, and choosing power rather than affiliation would presumably increase the level of endowed capital of the parents in the form of attitudes. Greater fear of failure would reduce the endowed capital. Assuming positive transmission of the attitudes, we would expect the effects on the income of children to be in the same direction as their effects on the level of parental endowed capital. We would expect the following effects on the income of children:

(1) positive effects for parental efficacy, future orientation, preferring one's child to be self-directed, choosing challenging rather than affiliative or power outcomes, and choosing power to affiliation,
(2) negative effects for fear of failure.

Empirical Model

The policy-relevant outcome is the economic status of an independent child rather than the economic status of the household's children as a group since children do not typically pool their economic resources as adults. For this reason the empirical model that we estimate treats the child as the unit of analysis.

While we focus on the child as the unit of analysis, we do consider the attainments of children from the same parental family. The similarity of the attainments of siblings has been used to assess the overall impact of family background on economic accomplishments (Corcoran, Jencks,and Olneck, 1976; Taubman, 1976; Brittain, 1977; Olneck 1977; Jencks et.al. 1979). However, there may be important differences between children from the same parental family that we need to be aware of. In particular, parents may treat individual children differently (Rowe and Plomin, 1981), and they may do this because they are responding to differences among siblings (Lytton, 1980). While developmental psychology does not have adequate theories accounting for sibling differences or resemblance (Scarr and Grajek, 1982), economists (Behrman, Pollak, and Taubman, 1982) have become interested in distinguishing strategies that parents may follow in their allocation of resources to individual children. A compensating strategy is one in which parents devote more resources to increasing the earnings of a child with lesser ability relative to his siblings. A reinforcing strategy involves devoting more resources to a child the greater his abilities relative to his siblings. A neutral strategy is one in which the same resources are devoted to all children regardless of their abilities. Which of these strategies parents follow is unknown, and there may, indeed, be a mixture across parents. In any case, there are differences between children from the same family in their economic attainments, and it may be helpful to know what produces the best possible child outcome. It may be, for example, that only one child from a large poor family achieves a high level of economic status. By looking at all children from this family we capture the overall effects of parental background. But a comparison of the greatest achievers from all families provides a more comprehensive perspective on the role of parental background in economic attainment.

The empirical approach we use is based on a structural equation system in which the ultimate dependent variable is the child's level of economic achievement, and parental background is a major predictor. This approach is frequently used in sociological work on economic status attainment of the child as an adult. Parental background, of which parental attitudes are a component, could affect the adult's attainment both directly and indirectly through intermediate outcomes. This approach allows the analyst to isolate the routes by which parental attitudes improve or hamper the offspring's achievements. If there are indeed effects of the parental attitudes, this approach can provide a clearer picture of what types of policies are needed to compensate for detrimental effects.

We examine a variety of measures of child's economic attainment. The primary one we focus on is the young adult's family income/needs level. This is the type of measure that is used to ascertain poverty status. We use a long-term measure rather than a single-year measure so that we have a more reliable indicator of permanent economic status. We also focus on the labor income and the welfare status of young adults. These variables are defined as follows:

Young adult's family income/needs: Annual needs represent the minimal income requirements of the family. The needs requirement is based on a standard similar to the official poverty definition. Each annual needs level is inflated to 1980 dollars. Average family money income to needs is simply the average inflated family money income divided by the average family needs of the young adult while in his own household.

Young adult's annual earnings: Includes wages, bonuses, overtime, commissions, and the labor part of farm income, business income, and market gardening income. Each annual report is inflated to 1980 dollars. Labor income is averaged for the years the young adult is in his own household.

Whether young adult received welfare: Whether the young adult received any income from AFDC/ADC, Supplemental Security, other welfare, or food stamps in the years he was in his own household.

The other economic outcome variables we examine include young adult's family income, work hours, labor force hours, and welfare dependency. These are all defined in Appendix B along with the definitions of the intermediate outcomes included in the analysis. These intermediate outcomes include young adult's education, whether young adult had a child before age 20, and whether young adult married before age 20. Each of these is treated as a predictor variable through which parental attitudes could affect the economic outcomes.

Since we are primarily concerned with the economic mobility of the poor, we allow for differential effects of parental attitudes according to the economic status of the parental family. This is accomplished by analyzing a representative sample of children but interacting parental attitudes with parental income/needs in addition to allowing for an additive effects of parental attitudes. It is important to include nonpoor children in the sample to see if the effects are identical for them; policies designed to alter the effects of parental attitudes could affect the nonpoor as well as the poor. If the effect of parental attitudes for poor children differs from that of nonpoor children, the interactive term will be significant.

With regard to the other predictor variables in the model, we rely on sociological attainment literature as well as Tomes (1981) analysis for our specification. The sociological attainment work and Tomes' economic inequality analysis have shown several background factors to have significant effects on the economic attainments of young adults. (See Blau and Duncan, 1967; Duncan, Featherman, and Duncan, 1972; Jencks, et.al., 1979; Featherman and Hauser, 1976; Hauser and Featherman, 1977; Sewell and Hauser, 1972; Griliches, 1977; Hauser and Daymont, 1977; Morgenstern, 1973; Kiker and Condon, 1981; and Tomes, 1981.) These factors include parental family income, parent's ability, father's education, mother's education, number of siblings, religion, whether the child grew up in a one-parent, mother only home, city size, and region of the country. These are the background factors that we include along with the parental attitudes and a control for age of the child in the regressions with child's economic attainment as the dependent variable. Appendix B provides a comprehensive explanation of these predictor variables. One other predictor variable is described in the appendix -- the level of parental welfare dependency. We chose to omit this variable from our final analyses since high multicolinearity between it and parental attitudes could obscure the effects for the parental attitudes. However, we ran economic attainment regressions with and without parental welfare dependency as a predictor and found very little difference in the effects of parental attitudes.

Description of Sample

The Panel Study of Income Dynamics data on splitoff children form the basis for our empirical analysis. Once individuals who began the PSID study as children in sample households leave their parental household, they are treated as new sample households. We have a 14 year time span of information about the economic status of a set of children who left parental homes since 1968. These children are interviewed the year they splitoff and all succeeding ones. In addition, their parental families are interviewed annually before the child leaves home as well as afterward. This method of following children provides cross-generation information from the most reliable sources. Information about the household the child grew up in is reported by the parents at the time the child is growing up. And information about the economic fortunes of the child as a young adult is reported by the child (or her spouse) each year after an independent household is established. For a focus on income issues, the multi-year nature of the PSID is especially useful. Long-term measures of both total family income and welfare income are possible. These long-term measures are superior to single-year indicators of economic status because they minimize misclassifications of economic status due to transitory fluctuations in earned income or welfare. For a focus on poverty-related issues, another useful aspect of the PSID is the original over-sampling of low-income families. These additional lower-income and minority households help provide greater reliability for poverty and welfare analysis than an equal probability sample of the same size.

Our sample of children consists of individuals who were children in their parents' home in 1968, and who left the household to become either the head or wife of their own household by 1981. Specifically, the individuals were between the ages of 12 and 17 in 1968 (25-30 in 1981), lived with at least one parent or grandparent in 1968, and had non-missing information on key parental background measures. The resulting sample contained 1255 members. The average member of this sample had spent 7 years at home with his or her parents and 7 years in an independent household. We selected the age range 12-17 in 1968 because it yields the most representative sample of children as young adults with a good mix of information both on the experience of the child in the parental family and on outcomes of the child as a young adult in his own household.[20]

To allow for differences in the structure of economic mobility according to race and sex, the sample was stratified into four race/sex subgroups: 319 white men, 258 black men, 378 white women, and 300 black women. Appendix C provides details on the characteristics of this sample, including their parental attitudes, other background characteristics and economic attainments. Appendix Table C.1 shows that there are a sizeable number of young adults from poor parental families included in the sample.

Confining the analyses to children who had split by 1981 means that some children --those who were still in the parental home at that time -- are not represented. As Appendix Table C.1 indicates, about 200 children were excluded because of this. This exclusion poses a potential sample selection bias problem. We performed tests for this, including tests in which non-splitoff children were included in the analysis along with splitoff children. The size of this sample is also listed in Appendix Table C.1, as is the size of another analysis group--one which excludes siblings from the same parental family. This latter sample consists of one child from each parental family represented in the sample of young adults who formed their own household by 1981. The child selected for the sample, when there was more than one from the same family, was the child with the highest own family income/needs level. This provided a sample of the highest achievers from each family.

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[20] If we included children that were any younger, very few would be of sufficient age to leave home and would provide little information on outcomes as young adults in their own households. Those who would split at such young ages wold not be likely to be representative of children as a whole. Somewhat different reasoning applies for not including older children: many would have split prior to 1968 and would have no parental record.

Intergenerational Mobility

We begin by comparing the economic status of parents in the latter years of child-rearing to the economic status of children as young adults.[21] Several measures of economic status, averaged over several years, are used for this analysis: family income/needs, family income, and welfare income/total income. All of these measures reflect permanent income, and the first one adjusts for family size and composition. Looking first at the simple correlation between the economic statuses of successive generations, we find a positive association closer to independence than to complete dependence. The simple correlations between parents and children are: .346 for family income/needs, .260 for family income, and .294 for welfare income/total income. This suggests a substantial amount of mobility from one generation to the next. For policy purposes the question is: Is there mobility throughout the distribution of economic status? This question can be answered by examining the two-way distribution of parental versus child economic status.

For a detailed look at the pattern of transitions across generations we focus first on the quintiles of family income/needs and then on welfare dependency. The income/needs quintiles adjust for needs in a manner similar to the poverty level adjustments yet do not allow differences in needs levels between the generations to dominate the results.[22] Table 4.1 shows that there is substantial intergenerational mobility at all levels of parental income/needs, including the lower status level. We can compare the actual percentage distribution with that expected if there were independence in the economic status of successive generations (figures in parentheses) and with that expected if there were complete dependence of the young adult's economic status on his or her parental status (figures on the diagonal in brackets). Doing so, we find that the actual distribution is much closer to independence than to complete dependence throughout the income/needs continuum. There is substantial upward mobility from the low end of the economic status scale and there is movement into the low end of the scale among the young adults from higher status parental families. The majority of the children from the lowest economic status parental group moved to a higher status group as young adults: the portion of the lowest parental quintile children remaining in the lowest quintile as adults was about 42 percent (8.7/20.0). While the size of the group remaining in low economic status is sensitive to the measure of that status,[23] the general conclusion that the majority of low status children move out of low status as adults still holds. Another conclusion that holds regardless of the measure of economic status is that this upward mobility is not just a marginal improvement for many of the initially low status children; nearly one-third of the children coming from the lowest quintile households are in the top three quintiles as adults.

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[21] An ideal assessment of the extent of intergenerational mobility would compare the economic status of parents and offspring when they are at the same stage in life. The data for doing this do not exist at present, so we do the next best investigation: we compare parents in the latter years of childbearing with children in the early years of adulthood.

[22] Since young adults are at an earlier stage of family formation they will tend to have lower needs and lower incomes.

All of this is not to say that the poor are not at greater risk of being poor in the next generation, they are. Young adults from the lowest income/needs quintile are 3.3 times as likely to be in the lowest income/needs quintile for their generation of young adults. (The comparable figures for the other measures of economic status range from 2.2-4.0. See Appendix Tables D.2-D.4.) Thus, while there is a substantial amount of intergenerational mobility among the poor,

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[23] Using income at 1.5 times the 1980 poverty level for a family of four as the cutoff for the lowest income category for both generations, we find that 49% of the children from the lowest income category remain there. With income at 1.5 times the 1980 poverty level for a family of two as the low cutoff, the percentage drops to 24%. With income/needs of 1.5 as the low cutoff, the percentage was 22%. (See Appendix Tables D.2-D.4.)

Table 4.1

Percentage Distribution of Young Adults by Parental Family Income/Needs Quintile and Own Family Income/Needs Quintile*
(Young Adults Who Formed Own Household by 1981)

Young Adult's Family Income/Needs Quintile	Parental Family Income/Needs Quintile					
	Lowest	Fourth	Third	Second	Highest	All
Lowest	8.7 (3.9) [20.0]	4.3 (3.4)	2.5 (4.3)	2.1 (3.9)	1.8 (3.9)	19.3
Fourth	5.4 (4.2)	4.5 (3.9) [20.0]	5.2 (4.7)	3.4 (4.2)	2.5 (4.0)	21.0
Third	3.6 (4.0)	3.5 (3.8)	5.1 (4.5) [22.4]	4.3 (4.0)	3.6 (3.9)	20.0
Second	1.9 (4.1)	3.6 (3.9)	5.8 (4.7)	5.1 (4.2) [20.0]	4.4 (4.0)	20.8
Highest	0.4 (3.7)	2.7 (3.5)	3.8 (4.6)	5.0 (3.7)	6.8 (3.6) [19.1]	18.6
All	20.0	18.6	22.4	20.0	19.1	100.0

*The number in parentheses represents what the percentage for that cell would be if young adults' own family income/needs were independent of parental family income/needs. The number in brackets represents what the percentage for the cell would be if young adults' own family income/needs were completely dependent on parental family income/needs.

coming from a poor parental family does substantially increase a young adult's likelihood of being poor as an adult.

Turning to the issue of welfare dependency transmission, we see (Table 4.2) that the distribution of young adults according to welfare dependency status also reflects more independence than dependence. Again, this is not to say that there is not a greater possibility of economic difficulties if you are reared in economic difficulties. Young adults reared in welfare receiving homes were themselves twice as likely to be welfare recipients as young adults reared in non-welfare recipient homes. But on the other hand, only half of the young adults coming from homes where welfare was received received welfare themselves, and these comparisons have not been adjusted for other factors that may cause welfare receipt. These conclusions hold when we confine our analysis to females as well (Appendix Table D.5). Thus, as with family income and income/needs, there is substantial mobility in welfare dependency status, yet there is greater likelihood of being a welfare recipient after being reared in a welfare-recipient home.

Description of Attitudinal Measures and Investigation of their Validity

The parental attitudes we examine in this analysis include personal efficacy, orientation toward the future, orientation toward challenging endeavors, orientation toward power outcomes, fear of failure, and orientation toward one's children being self-directed. Three of these measures differ from those used in the intragenerational analysis reported later in this report. We do not use the "control over life" item because it was not asked until the fifth interviewing wave and we wanted to minimize the possibility of contaminating the effects of parental attitudes through reverse causality, with the economic outcomes of the children feeding back onto the attitudes of the parents.[24] While

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[24] This meant that we wanted early measures of parental attitudes in an effort to get measures that predated the measured economic outcomes for the young adult. The personal control item, which may change with changing circumstances, was not measured until 1972, one to four years after some of the young adults would have left home and begun demonstrating their economic successes or failures.

Table 4.2

Percentage Distribution of Young Adults by Parental Welfare Income/Total Income and Own Welfare Income/Total Income*

(Young Adults Who Formed Own Household by 1981)

Young Adult's Welfare Income/Total Income	Parental Welfare Income/Total Income					
	0	0.01-0.25	0.26-0.50	0.51-0.75	0.75-1.00	All
0	60.9 (56.2) [75.2]	11.0 (13.7)	0.8 (2.1)	1.1 (1.3)	1.0 (1.6)	74.8
0.01-0.25	13.6 (17.1)	6.5 (4.2) [18.3]	1.4 (0.6)	0.5 (0.4)	0.6 (0.5)	22.7
0.26-0.50	0.6 (0.9)	0.3 (0.2)	0.1 (0.0) [2.8]	0.0 (0.0)	0.2 (0.0)	1.2
0.51-0.75	0.0 (0.5)	0.1 (0.1)	0.3 (0.0)	0.0 (0.0) [1.7]	0.2 (0.0)	0.6
0.76-1.00	0.1 (0.5)	0.3 (0.1)	0.2 (0.0)	0.0 (0.0)	0.1 (0.0) [2.1]	0.7
All	75.2	18.3	2.8	1.7	2.1	100.0

*The number in parentheses represents what the percentage for that cell would be if young adults' own welfare income/total income were independent of parental welfare income/total income. The number in brackets represents what the percentage for the cell would be if young adults' own welfare income/total income were completely dependent on parental welfare income/total income.

we are unable to use this one measure, we do use two measures not found in the intragenerational analysis. One is a measure of parent's preferences for the orientation of their children --the extent to which the parent desires the child to be self-directed or a leader rather than affiliative, e.g., popular with classmates, or conforming to authority. The other measure, orientation toward power rather than affiliation merely adds a further dimension to the nature of the parent's need for achievement. It is less clear that the relationship to economic status should be a positive one with this measure of need for achievement than with the other measures.

Efficacy of the household head was used as the measure of parental efficacy. This means that the father's efficacy is measured in households where both parents are present. In single parent households, the efficacy measure is either the father's or mother's depending on which is present. In order to minimize measurement error in the parental efficacy index,[23] we averaged the 1968 and 1969 efficacy indices.[24] We did not average parental efficacy beyond the first two years so as to avoid confounding parental efficacy through possible feedback from the child's successes or failures as a young adult.

Future orientation of the household head was used as the measure of parental future orientation. This measure was also averaged over the two years 1968 and 1969.

The components of achievement motivation -- orientation toward challenge rather than affiliation or power, orientation toward power rather than affiliation, fear of failure, and orientation toward one's children being self-directed -- were all taken from the parental household head's responses to questions in the 1972 (fifth) interviewing wave--the only time in which they were asked. For some young adults these measures of parental achievement motivation were taken from the parents after the young adults have left home. This should not present major problems, however, since they are considered to be fairly stable personality qualities, and they would be measured at most 4 years after the child left home.

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[23] There is a minor problem when taking this two-year average. In those households where the head changes between 1968 and 1969 (e.g., due to separation, divorce, death of spouse, or remarriage) the average may be based on two different person's reports. In adjacent years, however, the incidence of these events is small. It is felt that the benefits derived from a more stable measure of parental efficacy for most of the sample outweigh the error in a few cases.

[24] The 1968 measure by itself produced a U-shaped relationship between parental efficacy and the young adult's economic attainment. Substituting the 1969 measure for the 1968 one failed to confirm such a relationship and thus indicated a need to pool the 1969 and 1968 measures.

Before analyzing these motivation measures in the context of our analytical model it is useful to examine the validity of the measures. The extent to which the measures replicate other findings is one way of assessing their validity. For this investigation we examine the extent to which the attitudes of the parents vary with their economic status. Kohn's (1977) work suggests ways they may vary. Next we see if the attitudes correlate across generations. One would expect some positive correlation.

Heads of High and Low Income Parental Households

Comparisons of the average levels of parental attitudes for young adults from poor and nonpoor parental families show differences in the expected direction (see Appendix Table D.6).[37] Heads of low income parental families had a lower sense of personal efficacy, orientation toward the future, preference for challenge, preference for power over affiliation, and desire for children to be self-directed. They were also more likely to fear failure. These differences are all statistically significant at the 95 percent level of confidence. Quite sizable differences were found for personal efficacy, challenge versus affiliation, and the desire for children to be self-directed.

The culture of poverty and underclass hypotheses suggest that we would find parental differences in future orientation. Kohn's (1977) work with class differences in parental values suggests that there would be a significant difference regarding desire for children to be self-directed, with lower-class parents having less of this desire. The difference we find is statistically significant, sizable, and in the expected direction. These findings are not sensitive to sample selection criteria; there is little difference between the results for our splitoff sample and the full sample of young adults.

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[37] A poor parental family is one with average family income/needs less than 1.5.

Simple Correlations Between Parent's and Child's Attitudes

To get some idea of the extent of the intergenerational transmission of attitudes, we examine the simple (zero-order) correlations between parent's attitudes and child attitudes (Appendix Table D.7). The results, however, are based on information for a subset of young adults who had formed their own household by 1972.[28] Thus, selection bias is a potential problem with the evidence in Appendix Table D.7. The problem, however, may not be a very serious one. Comparisons of the characteristics of this subset and the full sample of young adults who had formed their own households indicate no differences of major consequence.[29]

For this restricted sample, we find that the pattern is one of a positive correlation between the parent's attitude and that same attitude for the child as a young adult. This is the most typical pattern across the various attitudes, but the correlation is large for only two of the seven attitudinal measures. There is a strong positive association between parent's and the child's challenge versus affiliation preference and between the parent's and the child's future orientation (correlations of .28 and .25 respectively). The other correlations across generations on the same attitude are considerably weaker, though generally positive.[30] Although small in size, there are also some interesting cross-correlations for the various attitudes.[31]

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[28] This was necessitated by the nature of the data. While the personal efficacy and future orientation items were included in several waves of the PSID, the achievement motivation items were only asked in 1972 of heads of households. If we are to examine the relationship between parent's and child's attitudes over the complete set of attitudinal measures contained in the PSID, we must necessarily restrict our analysis to young adults who had left home by 1972 and were heads of their new households that year. Two hundred sixty-one young adults had left home by 1972 and provided valid (i.e., non-missing) information on all attitudinal items.

[29] A comparison of this subset with the full sample of young adults who splitoff by 1981 in terms of average values of parental background (Appendix Table C.2), parental attitudes (Appendix Table C.3), and of the young adult's outcomes (Appendix Table C.4) points to some differences, but they are minor ones not statistically significant at conventional levels.

Relationships Between Parental Attitudes and Young Adult Outcomes

Based on existing literature which has considered the relationship between attitudes and economic status, we expect sense of personal efficacy, need for achievement, and orientation toward the future to be greater among those with higher personal and family incomes and not receiving or dependent upon welfare. Correlation does not establish causation, however. The observed positive correlation may either result from the attitudes exerting a positive impact on economic outcomes, or from past changes in economic status exerting a positive impact on attitudes, or from correlation of both with some other variable.

In an intergenerational context, we expect sense of personal efficacy, need for achievement, and orientation toward the future to be greater among the parents of those young adults who themselves attain higher personal and family incomes and are not receiving or are less dependent on welfare. This will be the case if parents transmit attitudes to their children and these attitudes positively affect child outcomes.

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[30] The lone exception is the small, but nevertheless negative correlation for the power versus affiliation index: young adults whose parents prefer power to affiliation themselves prefer affiliation to power.

[31] Young adults whose parents preferred 'power' over 'affiliation' were themselves high on the personal efficacy index. The correlation between parent's preference for 'power' over 'affiliation' and the young adult's personal efficacy was .23. There was a positive, although modest, correlation of .15 between parent's preference for 'challenge' over 'affiliation' and the young adult's desire that his or her own children are self-directed. The correlation between the parent's attitude and that same attitude for the child along the 'challenge-affiliation' and 'challenge-power' dimensions have already been seen to be amongst the highest registered. While it is also true that parent's preference for 'challenge versus power' is positively correlated with the young adult's preference for 'challenge versus affiliation' (the correlation is .17), there is little association between parental preference for 'challenge versus affiliation' and the young adult's preference for 'challenge versus power'. This latter correlation is only .04.

Correlations Between Parents' and Child's Outcomes

As a preliminary examination of these issues, we look at the simple (zero-order) correlations between parental attitudes and the educational and economic outcomes of their children as young adults. Table 4.3 presents the results for the three main dependent variables of interest used throughout our intergenerational analysis: the young adult's family income to needs, annual earnings, and whether ever received welfare. Appendix Table D.8 contains the correlations for the other outcome measures. These include education, family income, annual labor force hours, annual work hours, welfare income/total income, whether married before age 20, and whether had a child before age 20.

The correlations between the parental attitudinal measures and the young adult's income to needs nearly always have the expected sign, although for all outcome measures there are a few correlations with opposite signs to that which are expected. While most correlations are modest in size, some are fairly large, from .2 to .3. What is particularly rare among these results is a pattern of effects in which either (1) the associations between a parental attitude measure and a child outcome measure is strong for all race/sex subgroups or (2) the associations between a parental attitude and most or all of the child outcome measures are strong for any one race/sex subgroup. The strength of the associations is widely variable both by the race and sex of the child and by the outcome measure, with black females having correlations least in line with expectations.

Multivariate Effects of Parental Attitudes on Child's Economic Attainment

Estimation of the empirical model described earlier should provide a clearer picture of the association between parental attitudes and a child's economic attainment. While we are primarily interested in discovering the relationships between parental attitudes and the economic mobility of children from poor parental families, it is important to know if the same relationships hold for nonpoor parental families. To accomplish this, we could look at children from poor backgrounds and children from nonpoor backgrounds separately and compare the

Table 4.3

Zero-Order Correlations between Parent's Attitudes and Measures of Economic Status of Young Adult
(Young Adults Who Formed Own Household by 1981)

Parent's Attitude Measure	Young Adult's Family Income/Needs	Young Adult's Annual Earnings	Whether Young Adult Received Welfare
Efficacy			
White Males	.0196	.0658	-.1346
Black Males	.1014	.0689	.1021
White Females	.2299	.2532	-.2460
Black Females	-.0170	.1584	.0371
Future Orientation			
White Males	.1244	.0852	-.0385
Black Males	.0611	.1395	-.0002
White Females	.0900	.0829	-.1681
Black Females	-.0247	-.0245	.0548
Achievement Motivation			
Child Self-Directed			
White Males	.1392	-.0172	-.1008
Black Males	.0679	.1112	-.1232
White Females	.1191	.2509	-.0617
Black Females	-.0127	.0895	.1682
Challenge vs. Affiliation			
White Males	.1500	.0046	-.0181
Black Males	.2042	.1877	-.0506
White Females	.2096	.3177	-.1195
Black Females	.0471	.0500	-.0172
Challenge vs. Power			
White Males	-.0132	-.1558	.0375
Black Males	-.0096	.0090	.0838
White Females	.0073	-.0468	.0101
Black Females	.1888	.1260	-.1665
Power vs. Affiliation			
White Males	.1695	.0611	-.0973
Black Males	.0838	.1300	.0079
White Females	.1474	.2078	-.0916
Black Females	-.3054	-.1911	.2098
Fear Failure			
White Males	-.2035	-.0748	.1151
Black Males	-.0844	-.0598	-.1545
White Females	.0080	-.0516	-.0400
Black Females	-.1376	-.1730	.0554

effects. However, since we subdivide the sample by race and sex, the sample sizes for several of the resulting eight subgroups would be quite small.[32] We chose instead to analyze the poor and nonpoor as one group, allowing the effects of parental attitudes to vary with the level of income/needs of the parental family.[33] This is accomplished by including an interaction term for each parental attitude measure; this interaction term is the cross-product of the attitude and parental family income/needs. Parental attitudes, parental family income/needs, their cross-product terms, and the other background control variables noted earlier are all treated as predictors in regressions in which an economic attainment measure of the young adult is the dependent variable.

Table 4.4 presents model estimates for a variety of outcome measures of success: the young adult's income/needs, annual earnings, work hours, labor force hours, and family income. Education is an intermediate outcome. Receiving welfare can be considered as an indicator of lack of success.

Before we investigate the findings presented in Table 4.4 we must note that the main effects listed in the table represent the effect of the attitude when parental family income/needs is at a level of 1.0. Inclusion of the cross-product of an attitude measure and parental family income/needs necessitates consideration of the level of parental family income/needs when assessing the overall effect of the attitude on the dependent variable. Since we are primarily concerned with the poor, we choose to emphasize the effect evaluated at a level of parental family income/needs of 1.0, the level most comparable to the poverty line cutoff.[34] To facilitate significance tests for the effect evaluated at this

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[32] Partitioning the sample this way (and using a family income/needs level of 1.5 as the cutoff between poor parental families and nonpoor ones) would have resulted in the following sample sizes: 47 poor white men, 62 nonpoor black men, 72 poor white women, and 72 nonpoor black women.

[33] We did, however, examine the relationships separately for young adults from poor parental backgrounds. The results were essentially the same as those reported below with one exception that is noted later.

[34] Setting the level at 1.5, the cutoff used to identify poor parental families elsewhere in our analysis, would have resulted in evaluating the effect at the upper-most limit for poverty. A lower value, one closer to the mean for parental families, was deemed more appropriate.

Table 4.4

Summary Table of Regressions of Young Adult Outcomes on Parental Attitudes
Evaluated at Parental Income/Needs Equal to 1.0
(Young Adults Who Formed Own Households by 1981)

	Young Adult's Income/Needs				Young Adult's Labor Earnings				Whether Young Adult Received Welfare			
	Men		Women		Men		Women		Men		Women	
Parental Attitudes	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black
Efficacy			++				++				---	
		(-)										
Future Orientation	++				++			---				
			(+)	(+++)				(+++)	(+)			(--)
Achievement Motivation												
Child Self-Directed				+				+		--		
				(---)					(+)			(+++)
Challenge vs. Affiliation	-	+++	++			+++	++		++	--		
	(++)		(-)						(--)			(--)
Challenge vs. Power		-										
				(++)								
Power vs. Affiliation				---		++		---				+++
Fear of Failure		--	+++	---			++		+++			
			(--)				(--)		(---)	(-)		(--)
Number of Observations	319	258	378	300	319	258	378	300	319	258	378	300

+ Positive and significant at .10 level
++ Positive and significant at .05 level
+++ Positive and significant at .01 level

- Negative and significant at .10 level
-- Negative and significant at .05 level
--- Negative and significant at .01 level

Signs of interactions of attitudes with parental income/needs are in parenthesis.

Other predictor variables included in the analysis were: Father's Education, Mother's Education, Parent's Test Score, Number of Siblings, Whether South 1968, City Size 1968, Parental Income/Needs, Mother Only Home, Whether Catholic, and Age of Young Adult 1981.

Table 4.4 (Continued)

Summary Table of Regressions of Young Adult Outcomes on Parental Attitudes
Evaluated at Parental Income/Needs Equal to 1.0
(Young Adults Who Formed Own Households by 1981)

	Young Adult's Education				Young Adult's Family Income				Young Adult's Annual Work Hours				Young Adult's Labor Force Hours			
	Men		Women		Men		Women		Men		Women		Men		Women	
Parental Attitudes	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black
Efficacy			+++ (---)			(--)					++	+			+	
Future Orientation				(+++)				(+++)	+++ (---)			--	+++ (---)	(---)		--
Achievement Motivation																
Child Self-Directed	++	++ (--)						(---)				+++				++
Challenge vs. Affiliation		+		+++		++	++ (-)	(+)	-- (+)	+++	++++	(---)	-	+++ (+)	+++	-- (--)
Challenge vs. Power	(+)					--		+ (+)		(++)				-- (++)		
Power vs. Affiliation					(-)	+		---	+	+++		--	(-)	+++		
Fear of Failure				--			++ (-)	---		(+++)			+	(++)		
Number of Observations	319	258	378	300	319	258	378	300	319	258	378	300	319	258	378	300

+ Positive and significant at .10 level
++ Positive and significant at .05 level
+++ Positive and significant at .01 level

- Negative and significant at .10 level
-- Negative and significant at .05 level
--- Negative and significant at .01 level

Signs of interactions of attitudes with parental income/needs are in parenthesis.

Other predictor variables included in the analysis were: Father's Education, Mother's Education, Parent's Test Score, Number of Siblings, Whether South 1968, City Size 1968, Parental Income/Needs, Mother Only Home, Whether Catholic, and Age of Young Adult 1981.

level of parental family income/needs, we transformed the parental family income/needs variable so that the main effect of the attitude would represent the overall effect of that attitude when parental income/needs was 1.0.[35] The interaction term's coefficient and standard error tell us if the effect is significantly different at other levels of parental income/needs. The transformation of the parental income/needs variable was not performed for the regression analyses reported in Appendix Tables D.13-D.21 to allow more ready evaluation of the effects of the attitudes at other levels of parental income/needs.[36]

Table 4.4 lists only those effects that were significant at conventional levels. (These results are based on the coefficients and standard errors provided in Appendix Tables D.9-D.12.) It lists both the main effects of the attitude and, in parentheses, the interactive effect with parental income/needs. Taking the left-most set of four columns, the first row tells us that the only significant main effect of efficacy on the young adult's income/needs was for white females and the effect was positive and significant at the 95 percent level of confidence. There is no interactive effect accompanying this, so the main effect does not significantly differ for white females from nonpoor backgrounds. With a significant interactive effect, the main effect coefficient would apply only to the poor, and the interactive effect would indicate whether the main effect became stronger or weaker as the income/needs level of the parental family increased above the poverty line. It is also possible to have a significant interaction effect with no significant main effects. This occurs in the effect of efficacy on black men's income/needs. The effect of efficacy became more negative as parental income/needs increased above the poverty level, indicating that while there is no significant effect for black men from poor parental backgrounds, there could be a significant negative effect of efficacy for black men from affluent parental backgrounds. This interaction effect was significant at only the 90 percent level of confidence.

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[35] This was accomplished by subtracting 1.0 from each young adult's value on parental income/needs. This subtraction of a constant from parental income/needs changes the coefficient and standard error on the attitude measure but leave the coefficients and standard errors on other predictor variables, including the interaction term, unchanged.

[36] The main effects for these appendix tables are thus evaluated at a parental income/needs level of 0.

Two things are striking about our findings. One is the large number of insignificant coefficients, signaling no effects for many of the attitudinal measures. The other is the wide variation in the effects of the parental attitudes that do influence children's economic attainment. Men and women and blacks and whites differ in the way parental attitudes affect their economic attainment, and within race/sex subgroups there may be further variation in the effects according to the economic status of the parental family. Not one of the seven attitudinal measures registers significant effects operating in the same direction across the four subgroups. In addition, the few attitudinal measures with some similar effects across the subgroups have effects that may vary with the economic status of the parents. This variation, also, tends to differ across the subgroups.

Within subgroups, we find some effects of parental attitudes that are consistent across the different outcome measures. For white men we find fairly consistent effects of future orientation and one motive measure. A broader range of parental motives operates for black men; the set of motives with effects in the expected direction is larger for this subgroup than for any other. The success of white women varies with parental expectancies; this is the only subgroup for whom expectancies as measured by parental efficacy have any effect. Two motive measures register consistent effects on the success of white women, but the effects of one are not in the expected direction. Three motive measures show consistent effects for black women. The effects of one of these motives clearly distinguishes black women from other subgroups in terms of the relevance of parental motives.

White Men

White men are the only subgroup for whom parental future orientation has the expected effect on their success, and even then the effect varies some with the level of parental/income needs. Both the young adult's income/needs and annual earnings increase with the extent to which the parent is oriented toward planning ahead. This holds for white men from nonpoor backgrounds as well as those from poor backgrounds. The annual work hours and labor force hours of poor white men are higher the greater the future orientation of their parents; however, this effect of future orientation declines with the level of parental income/needs. While this decline with parental income/needs is somewhat surprising, that future orientation would have a positive effect on the success of white men but no other subgroup is not entirely surprising. The young white men are the subgroup with the most stable set of ample opportunities, and a range of choices that can be counted on may be needed for planning ahead to be effective in attaining goals.

The only motive measure that displays a consistent statistically significant effect on the success of white men is the challenge versus affiliation measure. The effect of this parental attitude on the young adult's achievement is a negative one for white men from poor parental backgrounds. It tends to become less negative as the parental background becomes less impoverished. These effects of the challenge versus affiliation distinction are contrary to expectations: the effect should be a positive one. The only positive contribution of a parental motive measure for white men is the effect of desire for children to be self-directed on educational attainment; this motive, however, has no significant effect on any other outcome measure. The general lack of effects of the motive measures, combined with the one effect that is the reverse of what was expected, suggests that parental motives contribute little to the success of white men. Thus, for the situation where there are opportunities that can be counted on it seems that children do not need strong motivation from their parents in order to succeed.

Black Men

A very different situation holds for black men, and the effects of parental attitudes may well reflect differences in the opportunity structure facing the young adult as well as the parent. For young black men, parental orientations toward challenge and power add to economic attainment; parental orientation toward affiliation subtracts from economic attainment. Positive effects of challenge versus affiliation are found across all the seven outcome measures, and these effects rarely vary with the level of parental income/needs. Positive effects of power versus affiliation appear in the family income, work hours, and labor force hours regressions. These effects also hold for young black men from nonpoor as well as poor parental backgrounds. One parental motive effect which does vary with the economic status of the parental family is the parent's desire for children to be self-directed. A greater desire for children to be self-directed leads to greater educational attainment among these youth from poor parental backgrounds. This positive effect on educational attainment, however, declines as the affluence of the parents increases. The orientation toward children being self-directed affects no other economic outcomes for black men, so it cannot be considered to have consistent effects on success. Overall, though, parental motives display stronger effects on the attainments of black men than on the attainments of any other subgroup. This suggests that when opportunities are severely restricted, as they are for black men, parental motives do make a difference.

White Women

Expectancies are the most important aspect of parental attitudes for white women. Parental efficacy exerts positive effects on the success of white women, while having no effect on the success of any other subgroup of young adults.[37]

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[37] Our preliminary report indicated a significant positive effect of efficacy among the children from nonpoor backgrounds but not those from poor backgrounds. Those comparisons did not involve separate analysis by race and sex for the nonpoor. Apparently, since the nonpoor are predominantly white, the effects for white females played a greater role for the nonpoor than the poor. When we looked separately at the poor white females we found no significant effect of

This positive effect of parental efficacy is found for all but one of the seven economic outcomes.[38] With only one exception the effect applies equally well to white women from poor and nonpoor parental backgrounds.[39] It is rather curious that parental efficacy has an effect only for this subgroup. It may be that expectancies require a very special environment in order to have a discernible influence on success. The environment of young white women, more so than the environment of other subgroups, is likely to be one with a variety of very different opportunities to select from. White men are also likely to have a wide variety of opportunities, but they do not face the decisions that women do. While men are choosing which occupation to enter, women are choosing whether to have a career or not. The combination of opportunities and major decisions may be needed before expectancies play a role in the determination of economic status.

Motives play an inconsistent role in the attainments of poor white women. Whereas parent's orientation toward challenge versus affiliation has positive effects on most measures of success, fear of failure, which would be expected to have negative effects, also makes a positive contribution to attainment. The effects of the former measure of parental motives generally apply to white women regardless of the economic status of their parents; the effects of the latter measure hold for white women from poor parental backgrounds and decline with the level of parental income/needs. It is difficult to tell what to make of these findings. The anomalous effects of fear of failure may reflect inadequacies in the measure.[40]

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efficacy, but this may be because of the small sample size. Dividing the sample according to race and sex and interacting efficacy with parental income/needs clarifies the relationship of efficacy to child's attainment.

[38] There is no effect on family income for poor white women.

[39] The exception is educational attainment, where the positive effect for poor white women becomes smaller as the economic status of the parental family improves.

[40] The questions underlying this measure were developed for a sample of individuals in school, and asking these questions about reactions to tests to older adults may not yield a measure of the same characteristic.

Black Women

The environment for black women is quite different from that for white women, and the different influence of parental attitudes may well reflect this. As with black men, it is parental motives rather than expectancies that matter for black women, but it is the effects of one particular motive that is most distinctive of black women. This motive is the desire for children to be self-directed or leaders. A positive effect of this motive shows up in the income/needs, annual earnings, work hours, and labor force hours regressions. The effect is significant for poor black women and generally does not vary with the economic status of the parents. This suggests that independence training plays a role in the success of black women. The effects of the parental desire for children to be self-directed operate on the economic aspects that black women have the most control over -- work hours and earnings. An emphasis on independence training fits well with the literature on socialization for black women and with the theory of how achievement motivation develops.

There are also effects of two other parental motives, but these are more difficult to interpret. There is a negative effect of the parental preference for power over affiliation on the success of black women that holds regardless of the level of economic status of the parents. This effect appears in the income/needs, annual earnings, welfare status, family income, and work hours regressions. These negative influences are opposite to expectations. There is also a negative effect of the parental motive fear of failure on several of the economic outcome measures. Its effect also does not vary with the affluence of the parents. The effect is operating in the expected direction. However, we should probably not put too much store in the effect of this variable because of its possible inadequacies as a measure of the fear of failure motive.

Selection Bias

We tested for possible bias in our results in several ways. First we were concerned about the representativeness of the findings since the income generating capacity of young adults who had not yet left the parental family could be quite different from that of those who had formed their own households. We made a statistical adjustment for the selection probability of becoming a splitoff and reestimated the regression incorporating this adjustment.[41] This produced no substantial differences in our findings regarding parental attitudes.[42] (Appendix Tables D.13 and D.17 compare results for the dependent variable family income/needs.)

Since statistical procedures for sample selection bias correction can distort relationships in the process of correcting for this the bias (Nathan, 1983), we also used another, more conventional, method for correcting for sample selection bias. We added the missing part of the sample --the young adults who had not yet splitoff from the parental household -- back into the sample and reestimated the regressions for the dependent variables that could be ascertained for them. The primary dependent variables were annual earnings and whether received welfare. The results for these dependent variables for the combined sample of splitoffs and nonsplitoffs were quite similar (See Appendix Tables D.14 and D.18 for comparisons). There were some differences, but they were not systematic with regard to particular attitudinal measures or to the sample. No attitudinal measure registered consistently different effects, and neither sample was more likely to register significant effects. Many of the differences involved effects that were marginally significant for one sample but not the other.

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[41] The procedure is to model splitting behavior to obtain estimated probabilities of splitting for each individual. These probabilities are then used to create inverse probability of selection weights. The algorithm used in estimating the model is SEARCH, which provides a very unrestrictive means of capturing the systematic portion of the variance in splitting behavior. The variation within the final mutually exclusive subgroups that the SEARCH program partitions the sample into is therefore essentially random with respect to the predictor variables in the model. Parental background factors and age of the individual were used as predictors of splitting behavior.

[42] There was no difference in the findings except for two coefficients that were significant only at the .10 level.

Analysis of Highest Attainment Children

As a further test of the generalizability of the findings, we looked only at the highest attainment child in the family and reestimated the regression for these high achievers. This produced a few modest changes in our findings, but most of the findings were the same. (Appendix Tables D.13 and D.19 permit comparisons for the dependent variable family income/needs.) Effects of parental motivation were not stronger among the high achievers than among all children. In fact, some were weaker. Two effects became insignificant at conventional levels: the effects for black women of parents preferring children to be self-directed and the effect for white women of parents preferring challenge to affiliation.

The Role of Intermediate Outcomes

To gain some further understanding of the effects of parental attitudes evidenced in the analysis reported thus far we explored two routes by which the effects of parental attitudes could be operating: the young adult's educational attainment and early family formation. Treating educational attainment as a path through which parental background factors affect economic attainments is common in the sociological work on status attainment. Early family formation has also been treated as a source of variation in the economic attainments of young women (Hofferth and Moore, 1979), so it also may be a path through which parental attitudes influence the economic outcomes of young adults. We investigated these possible avenues of influence by adding three predictor variables to the regressions: educational attainment, whether the young adult married at a early age, and whether the young adult had a child at an early age (regardless of marital status).[43] These variables were added separately to determine the extent to which the effects of parental attitudes were altered, and if so, by which of these added predictors. Any difference in the effects of the parental attitudes could be attributed to an indirect effect operating through the added control variable. The young adult's income/needs is the attainment measure we focus on for this analysis.

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[43] We define 'early' age to be at or before age twenty.

Adding education did have some effect on the relationship between parental attitudes and the young adult's income/needs, as we would expect, since some parental attitudes did affect the young adult's educational attainment. (Compare Appendix Tables D.13 and D.20). The effect of parental efficacy for white women is reduced by the addition of education as a predictor, as are the effects of parental motives for black men. The effect of one motive, desire for one's children to be self-directed, is reduced for black women. In addition, the effect of education on income/needs is large, positive, and highly significant for all four race/sex subgroups, ranging from a low of .117 for each year of education for white men to a high of .374 for black men. Thus, education is one route through which both parental expectancies, in the case of white women, and parental motives, in the case of blacks, can influence the young adult's economic attainment.

The early family formation variables were not instrumental in the way parental attitudes affected the level of income/needs attained by the young adult. (Compare Appendix Tables D.20 and D.21.)[44] The family formation variables themselves had little direct effect on the young adult's family income/needs, with one exception: having a child in the household that was born at or before the young adult reach age 20 exerted a negative effect on the income/needs level of young black men.[45] This effect does not appear to be related to the parental attitudinal measures, however.

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[44] The family formation variables were added both separately and collectively along with education; their effects were not altered by these changes so we present the table with all three intermediate variables for comparison with the one containing education as the only intermediate variable.

[45] While we did find detrimental effects of early childbearing on the educational attainment of women, as we would expect from other work on this topic (Hofferth and Moore, 1979), these effects did not carry over to become direct effects on the family income/needs of women. The same held true for the effects of early marriage.

In summary, we find that of the three intermediate outcome variables, only one, the young adult's education, plays much of a role in the way parental attitudes influence the economic attainments of young adults.

Effects of Other Predictor Variables

Turning to the effects of other factors (Appendix Tables D.13-D.16), we find some effects that conform to expectations. The young adult's economic attainment increases with his or her age. This appears for income/needs for all subgroups, and for earnings for all sugroups except black women. Parents' education contributes significantly to children's educational attainment: for all four subgroups there is a positive effect of father's education on the young adult's educational attainment, and for whites there is a positive effect of mother's education. Interestingly, parents' education does not have a significant effect on the young adults's level of income/needs. There must be some counteracting effects of parents' education operating through some other means. Coming from a mother-only home did not significantly affect any of the young adult outcome measures. Prior work indicated that poor black females had lower earnings and fewer work hours if they came from a mother-only home. These effects, plus the fact that the specification we use does not allow for differences in duration of time spent in a mother-only home suggest that this variable may need further exploration before it is dismissed as having no effect on the economic attainments of young adults. There are scattered effects of other background variables, including whether Catholic, number of siblings, and whether grew up in the South.

These findings leave us with some questions about the role of parental background in children's success. With the measures of parental background that we use we are able to account for about 10 percent of the variance in young white men's earnings (adjusted R^2 of .087). Work by others (Corcoran, Jencks, and Olneck, 1976; Brittain, 1977) indicates that as much as one-third of the variance in white men's earnings may be due to parental background factors. If this is true, two-thirds of the effects of parental background factors for young white males are not being picked up in our present model. Additional measures of parental background are needed to help shed more light on the ways in which parental background influences children's attainments.

Currently, we can expand the list by one very important factor, welfare dependency, to see the extent to which this form of economic status is passed from generation and whether parental attitudes play a role in such transmission. This is done in the next section.

Intergenerational Transmission of Welfare Receipt and Welfare Dependency

Welfare programs have been the primary weapons used to combat poverty. They are generally intended to provide an acceptable standard of living for those who are unable to support themselves while at the same time not encouraging dependence upon it as a permanent means of support. There is concern, however, that the programs may themselves be detrimental to the goal of eliminating poverty because they may reinforce and even produce negative motivations and a weak work-ethic in parents dependent upon it, which can be transmitted to the children and hamper their ability to earn income as adults. The welfare dependency theories and portions of the underclass theories (see Chapter 2) argue that there indeed exists a permanent welfare class which passes on a legacy of welfare dependency to its children, and that this welfare dependency is transmitted intergenerationally largely because values and motivations deemed vital to economic achievement -- autonomy, ambition, concern for the future, and coping -- are not reinforced during a childhood characterized by dependence upon welfare.

Whether there is a link between parental welfare status and children's later welfare status as adults, and whether this effect operates through parental attitudes are questions which have not been thoroughly answered. Previous empirical studies of these issues have suffered largely from inadequate data. Below, we examine both the extent of intergenerational transmission of welfare receipt and welfare dependence,[46] and ascertain the role of parental attitudes and motivations in this transmission for the four race/sex subgroups.[47]

Welfare Receipt

We first examine the extent to which parental welfare receipt is associated with the young adult's own welfare receipt, and determine to what extent it operates through parental attitudes. Table 4.5 presents the results of regressing whether the young adult ever received welfare on whether the parents ever received welfare, parental attitudes, and other parental background measures and controls. The first column for each subgroup contains the results when the parental attitude measures are omitted. There are significant positive effects of parental welfare receipt on whether the young adult ever received welfare for white males and white females. Young white males and females are each 16 percent more likely to receive welfare themselves if they grow up in households characterized by welfare receipt than similar young white males and females whose parents never received welfare. While the effect for young black females is positive and similar in magnitude to that for whites, it is only marginally significant (at the .10 level). Young black males with a parental background of welfare receipt are no more likely to receive welfare than are similar blacks from families who had never received welfare. Thus, while there is some increased susceptibility to being on welfare if a young adult's parents were on welfare, the increased susceptibility is much lower than it would be if there were transmission of welflre status. The observed coefficients are about fourteen standard deviations from a value of 1, which would indicate complete transmission of welfare status.

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[46] By welfare we mean AFDC/ADC, SSI, other welfare and food stamps. Welfare receipt is averaged over several years, with parental welfare receipt covering all years from 1968 until the young adult left the parental household and young adult's welfare receipt covering all years since he or she left the parental home.

[47] These analyses were performed early in the project when the 16 item achievement motivation index contained in the PSID was used as the measure of achievement motivation rather than breaking the index down into its five major components. It is similar to the sum of the challenge/affiliation, challenge/power, power/affiliation indices minus fear of failure. It also includes items on the desire for one's children to be self-directed. The subsample case counts differ somewhat due to a slightly different treatment of cases with missing data. We did repeat the welfare receipt analysis using the 5 achievement motivation measures and the results are virtually the same. We note differences in the text. We did not redo the welfare dependency analysis because it involves the more expensive maximum likelihood procedures.

Parental attitude measures -- efficacy, future orientation, and achievement motivation -- were added to the regressions to determine to what extent the relationship between parental and young adult welfare receipt observed for both groups of whites and black females is due to attitudinal deficits. The bulk of the effect of parental welfare receipt remains after these attitudinal controls are added. The effect of parental welfare receipt on young adult welfare receipt for white females is reduced by one-sixth (.160 to .135), yet remains statistically significant once parental attitudes are introduced. Parental personal efficacy and orientation toward the future are the source of the decline in the effect of parental welfare receipt on offspring's welfare receipt for white females. Young white females whose parents were efficacious are 15 percent less likely to receive welfare than similar young white females whose parents lacked personal effectiveness. White females whose parents were oriented toward the future are 13 percent less likely to receive welfare than those growing up in families where the parents lack concern for the future. Parental attitudes did not effect the welfare receipt of young white males, black males, or black females.

When we repeat the analysis using the 5 achievement motivation measures, results are generally the same although there are some effects of parental achievement motivation for blacks which did not show up when the single index of achievement motivation was used. Appendix Table D.22 indicates that, as before, there are significant positive effects of parental welfare receipt on whether the young adult received welfare for white males and females; marginally significant positive effects for black females; and no relationship between parental and offspring's welfare receipt for black males. When we add parental attitudes, the effect of parental welfare receipt on young adult welfare receipt for black

Table 4.5

Regressions of Whether Young Adult Ever Received Welfare on Parental Welfare Receipt and Attitudes
(Young Adults who Formed own Household by 1981)
(Standard Errors in Parentheses)

Predictor Variables	White Males		Black Males		White Females		Black Females	
	Without Attitudes	With Attitudes	Without Attitudes	With Attitudes	Without Attitudes	With Attitudes	Without Attitudes	With Attitudes
Whether Parents Received Welfare	.164** (.056)	.165** (.056)	.054 (.076)	.053 (.076)	.160** (.059)	.135* (.059)	.165+ (.088)	.167+ (.089)
Parental Efficacy		-.028 (.071)		.019 (.100)		-.143* (.073)		.029 (.111)
Parental Future Orientation		.068 (.081)		.097 (.106)		-.129+ (.077)		.052 (.114)
Parental Achievement Motivation		-.003 (.009)		-.002 (.014)		.013 (.008)		-.009 (.013)
Father's Education	-.003 (.007)	-.003 (.007)	-.005 (.009)	-.006 (.009)	.012 (.008)	.011 (.008)	-.033** (.009)	-.033** (.009)
Mother's Education	-.010 (.009)	-.009 (.009)	.003 (.011)	.004 (.011)	-.026** (.009)	-.024** (.009)	.025* (.012)	.025* (.012)
Number of siblings	.002 (.011)	.003 (.011)	.005 (.013)	.005 (.014)	-.003 (.009)	-.0007 (.009)	.009 (.013)	.009 (.013)
Mother only Home	.040 (.061)	.032 (.064)	-.126+ (.068)	-.124+ (.069)	.017 (.054)	.016 (.055)	.012 (.066)	.011 (.069)
Parental Income/Needs	-.024 (.015)	-.024 (.015)	-.163** (.053)	-.167** (.054)	-.024* (.010)	-.019+ (.010)	.017 (.049)	.015 (.051)
Whether Catholic	-.119* (.049)	-.116* (.050)	-.194+ (.113)	-.189+ (.114)	-.049 (.047)	-.057 (.047)	.048 (.183)	.047 (.187)
Whether South 1968	-.123* (.051)	-.129* (.052)	-.025 (.075)	-.025 (.076)	-.137** (.051)	-.134** (.051)	-.009 (.087)	-.025 (.092)
City Size 1968	.00009 (.0001)	.0001 (.0001)	.0003+ (.0002)	.0003+ (.0002)	-.00003 (.0001)	-.00008 (.0001)	.0001 (.0002)	.0001 (.0002)
Parents Test Score	-.008 (.011)	-.007 (.011)	-.007 (.012)	-.007 (.013)	-.009 (.011)	-.008 (.012)	.013 (.013)	.014 (.012)
Age of Individual 1981	-.002 (.012)	-.002 (.012)	.035* (.017)	.034+ (.018)	.003 (.012)	-.0002 (.012)	.012 (.017)	.009 (.018)
Adj. R'	.100	.103	.103	.103	.108	.127	.100	.102
Number of Observations	383	383	268	268	431	431	309	309

+ significant at .10 level, two-tailed test
* significant at .05 level, two-tailed test
** significant at .01 level, two-tailed test

females is reduced by one-third (.149 to .098), and the effect becomes statistically insignificant (recall it was only marginally significant to begin with). Several motivational indices affected welfare receipt for black females. Young black females whose parents preferred challenge to either affiliation or power are significantly less likely to receive welfare than black females whose parents did not prefer challenge. Surprisingly, young black females whose parents desired them to be self-directed were 29 percent more likely to receive welfare, and those with parents preferring power to affiliation were 25 percent more likely to receive welfare.

There is a minor reduction in the effect of parental welfare receipt for white females operating (as before) through parental efficacy. Although there is no relationship between parental and offspring's welfare receipt for black males, a few parental achievement motivation measures did exert an independent effect on whether welfare was received. Young black males whose parents desired them to be self-directed were themselves 22 percent less likely to receive welfare, and those whose parents preferred challenge to affiliation were 18 percent less likely to receive welfare than similar black males whose parents did not desire their children to be self-directed or prefer challenge. Somewhat surprisingly, young black males whose parents feared failure were 22 percent less likely to receive welfare than those coming from households where the parents did not fear failure. As before, parental attitudes did not have an effect for white males. Thus, transmission of susceptibility to welfare use is not primarily due to attitudinal deficits on the part of parents receiving welfare.

Welfare Dependency

While one must receive welfare before one can become dependent upon it for support, our findings of transmission of welfare receipt intergenerationally for white males and females says little about the transmission of welfare dependency, i.e., the fraction of total income that is in the form of welfare. The positive association between whether parent and young adults ever received welfare observed for whites may be due to an 'informational' effect or may be reflecting an absence of the 'stigma' attached to receiving welfare for these young adults. In this section we use welfare dependency as the measure of both parental and the young adult's welfare status. With this measure we can more properly test the claims that welfare dependence is transmitted intergenerationally, and that the transmission takes place largely through attitudes.

The outcome of interest is the young adult's welfare dependency, measured as the fraction of permanent income that was in the form of welfare, where welfare includes AFDC/ADC, SSI, other welfare, and food stamps. Parental background factors are treated as predictors of this variable. These predictors include a parental welfare dependency measure, parental attitude measures, and a set of parental background measures and controls. The parental welfare dependency measure, like the young adult's measure, reflects the fraction of permanent income in the form of welfare. A set of dummy variables is used to represent this variable in order to capture possible nonlinearities in the relationship.[44] The parental attitude measures are parental efficacy, future orientation, and achievement motivation.

In order to properly analyze the relationship between parental welfare dependency and offspring's welfare dependency in a multivariate context, it is necessary to use the "inverse Mill's ratio" estimation method (attributable to Heckman). This method is appropriate for the type of dependent variable under analysis -- a limited dependent variable which arises due to sample censoring. The value on offspring's welfare dependency that we observe, because it is a ratio of welfare income to total income, can take on either a value of zero or it can take on any of the many continuous positive values less or equal to unity. Parental welfare dependency potentially influences both whether the young adult receives welfare and the degree of the young adult's welfare dependency once welfare has been received. Using ordinary least squares to estimate the relationship with either the full sample of observations or restricting the sample only to young adults with positive welfare receipt would produce biased estimates. The estimates would be biased because the effect of parental welfare dependency on the degree of the young adult's welfare dependence would be confounded with its effect on whether or not the young adult received welfare.

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[44] The dummies are: Never received welfare (the omitted category), 1-25 percent welfare dependent, 26-50 percent welfare dependent, 51-75 percent welfare dependent, and 76-100 percent welfare dependent.

Heckman (1976, 1979) has formally demonstrated that an appropriate way to estimate a limited dependent variable arising through sample censoring is to treat them as models with missing data. The censoring problem, initially seen as a problem arising because observations are missing on the dependent variable (in our case, truncated at zero), is solved by converting the problem into an omitted variable bias framework. Relatively simple regression methods can then be used to estimate parameters free of bias. We recognize that the standard response in this case has been to adopt Tobin's (1958) model for a limited dependent variable, where the method estimates the slope of the Tobit index and recovers the standard error of the dependent variable's truncated distribution. While there are theoretical reasons for preferring the Heckman approach to that of the Tobit when estimating the transmission of welfare dependency,[49] we nonetheless present the results obtained using both methods. We concentrate, however, on the results obtained using the Heckman two-stage method, with only the young adults with some welfare use included in the second stage that we report.

If there were an intergenerational transmission of welfare dependence, one would expect one of 3 types of patterns to emerge. The first would be simply a pattern in which parental welfare receipt at any level contributed to the level of offspring welfare dependency; an effect of transference of information about eligibility requirements would take this form, as would handicaps that accompanied the receipt of any amount of welfare. This type of transmission would mean significant effects for all of the levels of parental welfare dependency with parents receiving any welfare. The second pattern would be one in which parental welfare dependency level contributed monotonically to the level of offspring welfare dependency. This type of effect would be expected if attitudes degenerated with the level of dependency and these attitudes were handicaps passed on to children. The third pattern would be one in which the highest level of parental welfare dependence, but not the low levels, raised the level of offspring welfare dependence. This effect would be expected if heavy reliance on welfare, and not just some exposure to welfare, fostered handicaps in children.

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[49] Censored samples arise for different reasons, and the biases that result from using least squares estimation and the statistical techniques necessary to correct them depend crucially upon why the observations are missing (Judge, et al, 1980). The Tobit model is inappropriate in our case because the theoretically preferred selection rule which determines whether or not offspring's welfare dependency exceeds zero (i.e., why observations are missing), contained in the Heckman procedure, is not the one which underlies the Tobit procedure. For more detail, see Hill and Ponza (1983).

The results of this analysis appear on Table 4.6. Despite the findings of some significant effects, there is little evidence of the patterns of effects one would expect if there were intergenerational transmission of welfare dependency. The pattern in which parental welfare receipt at any level contributed to the greater likelihood of offspring welfare dependency would mean significant but fairly constant effects for all of the included categories of parental welfare dependency. This does not hold for any subgroup. The pattern in which parental welfare dependency level contributed monotonically to the likelihood of offspring welfare dependency also does not hold for any subgroup. The third pattern, with the highest level of parental welfare dependency, but not the low levels, raising the likelihood of offspring welfare dependency did emerge, to a certain extent, for white males and females but not for either black subgroups. Blacks from welfare dependent families were no more likely to become welfare dependent than were similar blacks from families who had never received welfare.

Thus, while for the black subgroups there is no evidence of a pattern of intergenerational welfare dependency, this cannot unequivocally be said for whites. It should be noted, however, that the portion of individuals affected by such phenomenon is very small. Only 1.6 percent of the young white women were from parental households 76-100 percent dependent on welfare. Only 1.9 percent

Table 4.6

Effects of Parental Welfare Dependency on Young Adult's Welfare Dependency
(Dependent variable is young adult's welfare dependency)

Parent's Welfare Dependency	Heckman Corrected (with Probit)		Tobit	
	Without Attitudes	With Attitudes	Without Attitudes	With Attitudes
White Males (Never received welfare)	-	-	-	-
1-25% dependent	.024 (0.65)	.012 (0.31)	.074* (2.37)	.073* (2.29)
26-50% dependent	.316** (3.19)	.307** (2.64)	.434** (6.25)	.451** (6.35)
51-75% dependent[1]			-.809 (-0.01)	-.832 (-0.12)
76-100% dependent	.072 (0.74)	.061 (.063)	.136 (1.47)	.139 (1.50)
F-value	4.17**	-	-	-
R^2 (log likelihood)	.393	.439	(-39)	(-38)
Number of Observations	81	81	383	383
Black Males (Never received welfare)	-	-	-	-
1-25% dependent	-.010 (-0.22)	-.011 (-0.25)	.026 (0.51)	.021 (0.41)
26-50% dependent	-.087 (-1.34)	-.087 (-1.27)	.044 (0.61)	.046 (0.63)
51-75% dependent	.010 (0.14)	.018 (0.25)	-.067 (-0.78)	-.064 (-0.56)
76-100% dependent	.008 (0.12)	.014 (.020)	.049 (0.60)	.044 (0.55)
F-value	0.79	-	-	-
R^2 (log likelihood)	.156	.196	(-69)	(-67)
Number of Observations	92	92	268	268

Table 4.6 (continued)

Parent's Welfare Dependency	Heckman Corrected (with Probit) Without Attitudes	Heckman Corrected (with Probit) With Attitudes	Tobit Without Attitudes	Tobit With Attitudes
White Females (Never received welfare)	-	-	-	-
1-25% dependent	-.021 (-0.49)	-.027 (-0.63)	.035 (0.71)	.020 (0.41)
26-50% dependent	.058 (0.70)	-.032 (-0.36)	.194+ (1.89)	.193+ (1.88)
51-75% dependent	-.054 (-0.43)	-.057 (-0.45)	-.093 (-0.53)	-.114 (-0.63)
76-100% dependent	.205* (2.42)	.194* (2.26)	.313** (3.05)	.267** (2.61)
F-value	2.18*	-	-	-
R^2 (log likelihood)	.347	.360	(-102)	(-98)
Number of Observations	112	112	431	431
Black Females (Never received welfare)	-	-	-	-
1-25% dependent	.003 (0.05)	-.015 (-0.24)	.121+ (1.66)	.113 (1.53)
26-50% dependent	.144+ (1.59)	.130 (1.43)	.282** (2.68)	.261* (2.48)
51-75% dependent	.067 (0.65)	.062 (0.60)	.035 (0.29)	.039 (0.32)
76-100% dependent	.060 (0.56)	.044 (0.41)	-.022 (-0.18)	-.032 (-0.26)
F-value	0.99	-	-	-
R^2 (log likelihood)	.226	.250	(-172)	(-171)
Number of Observations	180	180	309	309

+ significant at .10 level, two-tailed test
* significant at .05 level, two-tailed test
** significant at .01 level, two-tailed test

t-ratios in parentheses
A dash indicates that the statistic was not calculated.

[1] In the Heckman corrected analysis for white men there were no cases of white men receiving welfare themselves who had parental welfare dependency of 51-75%.

of the young white men were from parental households 26-50 percent dependent on welfare.

The added issue at hand is the extent to which welfare dependency is a pathology passed on from one generation to the next via poor attitudes developed as a result of the dependency on welfare. We attempt to answer this question by adding controls for parental attitudes of efficacy, future orientation, and achievement motivation, and observing the extent to which the effects of those attitudes account for the effects of parental welfare dependency. There is little difference. Furthermore, there is little effect of the parental attitudes themselves on offspring's welfare dependency (Table 4.7). Thus, there is little evidence that what amount of intergenerational transmission of welfare dependency exists is due to a linkage mechanism with welfare dependency causing transmission of poor attitudes which then contribute to greater welfare dependency in the next generation.

Table 4.7

Effects of Parental Attitudes on Young Adults' Welfare Dependency

	Heckman Corrected OLS				Tobit			
Parental Attitudes	White Males	Black Males	White Females	Black Females	White Males	Black Males	White Females	Black Females
Achievement motivation	.010 (1.43)	-.005 (-0.64)	-.006 (-0.81)	-.017+ (-1.75)	.004 (0.68)	-.008 (-0.91)	.003 (0.35)	-.008 (-0.78)
Efficacy	-.045 (-0.79)	.071 (1.32)	-.050 (-0.81)	-.022 (-0.25)	-.059 (-1.31)	.038 (0.61)	-.117+ (-1.82)	-.100 (-1.02)
Future Orientation	-.085 (-1.44)	.622 (0.99)	-.036 (0.53)	.141 (1.54)	.026 (0.48)	.096 (1.46)	-.121+ (-1.74)	-.083 (-0.84)
F-value	1.78	1.24	0.64	1.74	-	-	-	-
Number of Observations	81	92	112	180	383	268	431	309

+ significant at .10 level, two-tailed test
* significant at .05 level, two-tailed test
** significant at .01 level, two-tailed test

t-ratios in parentheses

Other varisbles include: father's education, mother's education, number of siblings, mother only home, parental income/needs, whether Catholic, whether South 1968, cith size 1968, parents' test score, age of individual 1981, 1-25% parental welfare dependent, 26-50% parental welfare dependent, 51-75% parental welfare dependent, and 76-100% parental welfare dependent.

CHAPTER 5

INTRAGENERATIONAL ANALYSIS

Introduction and Summary

This portion of the report summarizes results from an analysis of the short-run dynamic relationship between motivation and economic status. The PSID is very well-suited for such an analysis because its initial design called for an oversampling of lower income families and for the measurement of a set of motivational components derived from Atkinson's theory of achievement motivation.

By short-run, we mean within several years. This intragenerational analysis is directly relevant to policies aimed at short-run solutions to poverty. If attitudes have short-term effects on economic mobility, then policies directed toward improving attitudes might reduce poverty and dependency. If employment status is a positive factor in people's self-attitudes, as many studies find (Cohn, 1978; Pearlin et al., 1981; Elder, Liker, and Jaworski, 1983) then programs aimed at finding employment for the unemployed or underemployed may not only improve self-attitudes, but also enhance prospects of future occupational success. If poor self-attitudes make people more likely to go on welfare and welfare in turn enhances people's feeling that they cannot control their destiny, this self-perpetuating cycle may need to be broken in order to wean people from the welfare roles. On the other hand, policies based on the assumption that attitudes and economic status are mutually reinforcing should be re-examined if it can not be convincingly demonstrated that this assumption is supported by data.

As background to the analysis of economic mobility and motivation we begin with a discussion of the theoretical basis for our short-run dynamic model. Second, we describe our sample. Third, we describe the mean scores on our motivational indices for these groups and their cross-sectional association with various economic status measures. The fourth section focuses on the effects of the motivational indices on subsequent changes in economic status, while the final analysis section in this chapter examines the effects of economic status change on changes in personal efficacy.

As in other research, we find substantial statistically significant attitudinal differences at a point in time between heads of high versus low income families. Virtually all of these differences are in the expected direction with the more successful household heads scoring higher on the basic motives of challenge and power and on the expectancy items and scoring lower on the fear of failure items. But, do these motivational differences cause or result from the success? A crucial part of the analysis strategy we employ is to model the possible reciprocal causation between motivation and economic status.

Our model is composed of two parts. The first allows for causal paths running from the motivational components to subsequent change in economic status. Since "success" may mean different things to different people, we include a host of economic outcomes in our analysis. The second part of the model allows for causal paths running from changes in economic status and other life events to concurrent changes in attitudes. Support for this path is found in a huge literature on the psychological consequences of various life events. With a number of additional, justifiable assumptions, the model is identified in a statistical sense and can be estimated with OLS applied separately to each equation. In order to provide a special focus on the lower portion of the income distribution, the models were estimated separately by race and sex for individuals whose prior earnings placed them in the bottom half of the earnings distribution. This restriction eliminated virtually no female household heads and relatively few black male household heads.

Our empirical analysis strongly supports the hypothesis that the point-in-time correlation between the motivational components, particularly expectancies, and are largely the result of past changes in economic status and not the cause of subsequent betterment. We find that changes in sense of personal efficacy (an expectancy concept) responded in a highly significant way to changes in earnings of white men, and to changes in work hours and job-related geographic moves for black men. The results for the two groups of women were more ambiguous, with few events affecting the efficacy of white women and a variety of labor market and family events affecting the efficacy of black women, but not always in expected directions.

In contrast, the only consistently significant effect running from the motivational components to subsequent change in economic status were for black female household heads. For them, the basic challenge motive produced significant effects, largely by increasing the number of hours worked and by increasing the likelihood that the black women would marry or remarry. Extensive experimentation with the time period over which changes were measured and with a variety of functional forms failed to turn up consistent evidence of short-run effects of the other motivational components on the economic fortunes of black women or of any of the motivational components for black men, white men or white women.

Explanation of Short-Run Dynamic Model

Theories of achievement motivation suggest that individuals will be motivated if two conditions hold [Gurin and Gurin (1970), Parsons and Goff (1980)]. First, they must value advancement or the rewards associated with advancement. Second, they must believe that their personal initiative will help them advance. Their expectancy of success in achieving work-related goals depends on their perceptions of their own general effectiveness in performing (efficacy), as well as perceptions of whether or not there are opportunities for advancement.[30]

To be sure, the ability to translate personal initiative into higher economic status may be constrained by existing opportunities. Higher-paying jobs may simply not be available, supervisors may not recognize or reward personal initiative with higher pay, or there may be few opportunities for working extra hours. Hence, disadvantaged groups with fewer opportunities for advancement or individuals otherwise constrained by their jobs or the labor market in which they work are less likely than the advantaged or unconstrained to find outlets for translating motivation into higher economic status. Moreover, to the extent that they perceive that few opportunities exist, there will be less incentive for them to show initiative [Gurin and Gurin (1970)]. Note that the same arguments can be made to explain the ways in which a low sense of personal efficacy can lead to demotions and/or reduced status. In this view, then, greater motives or a greater sense of personal efficacy can be expected to lead to greater subsequent economic success.

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[30] Gurin et al. (1978), using factor analysis, show empirically that the concept of "personal control" is distinct from the concept of "control ideology." The former refers to beliefs about one's own ability to control life outcomes while the latter refers to beliefs about how society operates. As Andrisani (1978) notes, we would expect feelings of personal control to be more sensitive to and predictive of changes in earnings, and indeed Andrisani (1978) finds support for this view using the NLS data. Throughout this study, we use the term "personal efficacy" to refer to "personal control," not "control ideology."

On the other side of the causal picture, there are as many reasons to expect that level and change in economic status may produce concurrent and subsequent change in some of the motivational components, especially sense of efficacy. Research on the psychological consequences of "stressful life events" [Dohrenwend and Dohrenwend (1974)] has shown that many clinical symptoms previously assumed to be an outgrowth of early childhood experiences can be caused by current situational changes such as divorce, job loss, or an unexpected residential move. One explanation for the detrimental consequences of undesirable life changes is that these experiences challenge the individual's sense of being able to control life outcomes [Pearlin, et al. (1981), Antonovsky (1979)].

There are a number of ways in which changes in economic status can influence personal efficacy. First, changing economic status can operated indirectly through changing life circumstances. For example, a fall in earnings can create tensions in family relationships [Strauss, et al., (1980)] which, in turn, reduce feelings of efficacy. Second, changing economic circumstances are events in their own right. For example, a raise may provide a breadwinner with an enhanced sense that he or she can perform well on the job and hence continue to experience success while a reduction in earnings might be interpreted as personal failure.

In general, events will have their greatest effects when they are thought to reflect personal competency and achievement [Bem (1967); Andrisani (1978)]. As a result, personal earnings for which the individual can take credit may be more important to efficacy than other family income, even though in a practical sense $100 is $100 no matter how acquired. For male household heads, we would expect personal efficacy since it is their role to provide economically for their families [Cohn (1978); Elder, et al. (1982)].

A Model Relating Economic Status and Motivation

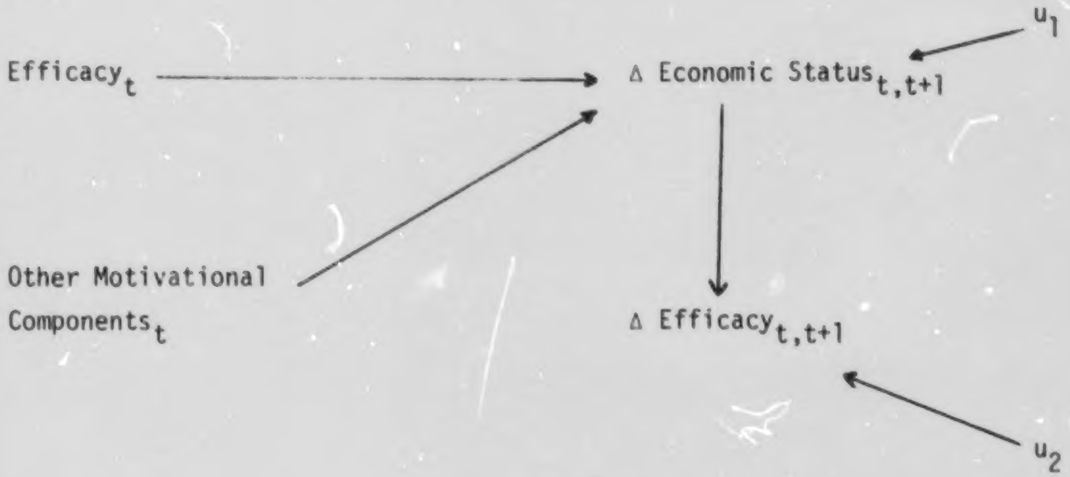
The model suggested by the discussion above suggests two patterns of possible causation between motivational components and economic success. First, that initial level of motivation may affect subsequent change in economic position and second, that concurrent change in position may produce a change in efficacy. This recursive model, depicted in Figure 1, is just identified.

It is important to note that we ruled out one key causal path *a priori*. We assume that motivational changes do not influence concurrent economic changes. The basic argument is that personal initiative must be recognized by firms and opportunities must be available before initiative can lead to economic changes. This can take years, particularly if the pathway from motivation to increased economic well-being involves completion of a training or educational program. Moreover, when we consider family level economic measures it seems unlikely that a change in the head's motivation will have an immediate effect on the earnings of other family members. Consistent with the assumption that changes take time is evidence that longer-term (four year) changes in earnings are more sensitive to efficacy levels than changes from one year to the next [Duncan and Morgan (1981)].

Many researchers, including Andrisani (1978), include direct paths from initial level of efficacy to subsequent efficacy change and from initial level of earnings to subsequent earnings change. This procedure of controlling for initial level was strongly recommended by Bohrnstedt (1969) in order to control for "regression to the mean." After a thorough investigation of this practice,

FIGURE 1

MODEL OF MOTIVATION AND ECONOMIC STATUS


Efficacy_t
Δ Economic $\text{Status}_{t,t+1}$
u_1
Other Motivational Components_t
Δ $\text{Efficacy}_{t,t+1}$
u_2

we have concluded it is not desirable and can lead to substantial estimation biases (Augustyniak, Duncan, and Liker, 1983). Nonetheless, for purposes of compatibility with Andrisani we re-estimated all equations adding the initial level without any substantial changes in results.

With the addition of background control variables, the model in Figure 1 can be represented in equation form as:

$$(5.1) \quad \Delta \text{Economic Position}_{t,t+1} = B_0 + B_1 \text{ Motivation}_t + B_2 \text{ Human Capital} + u_1$$

$$(5.2) \quad \Delta \text{Efficacy}_{t,t+1} = C_0 + C_1 \Delta \text{Life Events}_{t,t+1} + C_2 \Delta \text{Economic Position}_{t,t+1} + C_3 \text{ Age} + u_2$$

where Motivation$_t$ includes efficacy and the other motivational indices, B_2 is a vector of parameters representing the effects of various human capital measures on earnings change (i.e., cognitive ability, education, work experience, and physical health) and C_1 is a vector of parameters representing the effects of non-economic life events which may have a bearing on personal efficacy (i.e., births, become disabled, involuntary moves, and change in marital status), and C_2 is a vector of parameters representing the effects of economic events. Also included is age, a variable which appears to be associated with trajectories in attitudes (Duncan and Liker, 1983).

The key to estimation of the short-run dynamic model is the assumption on the timing of effects. We assume that a change in economic status will have a concurrent effect on changes in attitudes. By concurrent we do not mean instantaneous, but that the effect will be immediate enough that it can be treated as instantaneous (i.e. well within one year). The effect of attitudes on economic status on the other hand is likely to take time. Hence, we estimate the effects of attitudes on economic status changes over a four-year period, 1972-1976, while we look at the effects of changes in economic status between 1971 to 1972 on attitude change from 1971 to 1972.

A Description of the Sample

This intragenerational analysis focussed on prime-aged household heads who were respondents in 1972. The emphasis was directed toward the economically disadvantaged by restricting the sample to individuals whose average earnings in 1969-1971 were in the bottom half of the earnings distribution. The earnings restriction was inconsequential for the women, who were virtually all in the bottom half of the earnings distribution to start with, but it did exclude slightly more than half the men from the sample. The sample was divided into four groups on the basis of race and sex.

The first part of the analysis concentrated on the link between motivation and subsequent change in status. The respective sample sizes were as follows: 208 white women, 410 black women, 579 white men, and 314 black men. For the second part of the analysis, which concentrated on the effect that changes in status have on changes in efficacy, we imposed the additional restriction that individuals be both the head of the household and the respondent in 1971 as well as in 1972. This resulted in somewhat lower case counts as follows: white women 165, black women 372, white men 275, and black men 280.

The decision to analyze these four groups separately arose in part because information on their demographic characteristics makes it clear that they have had very different experiences. Tables describing the demographic characteristics of the sample as well as additional information on sample definition can be found in Appendix E. To summarize briefly, whites have had more education and have higher test scores and white women were more likely to have been married in 1968 while black women were more likely to have been household heads. Blacks, particularly women, were more likely to live in large cities and black men were more likely to be from the south. Both groups of women worked less hours and had lower earnings than the men, received more welfare income and had lower income to needs ratios. Many of the female heads had dependent children under their care.

Distributions of Attitudes Across Subgroups

There are large differences in the means of these attitudinal items and indices across groups (see Table 5.1). In general, men are more efficacious, less anxious about test results, and more future-oriented than women household heads. In addition, whites are more efficacious, less anxious, and more future-oriented than blacks.

Patterns for the achievement orientation indices are less straightforward. The challenge/affiliation index shows sex differences that differ by race. It appears that white women are less achievement oriented and more affiliative than white men; however, this pattern is reversed for blacks. Black women heads are slightly more achievement oriented than black men. On challenge versus power, this pattern appears for the "job with thinking versus job with say" item, but not with the "do better versus respect for views" item.

These differences generally reflect the socioeconomic realities faced by these different subgroups. The women in our sample are female heads who often face the difficult job of balancing economic pressures with child-rearing responsibilities. Male heads are generally better off economically and rarely take primary child-care responsibility. Black men and women are considerably more hard-pressed economically than their white counterparts. The differences in achievement motivation may partly reflect a different cultural emphasis by race. In the white world there are strong pressures on men to succeed, while pressures on women often create barriers to high achievement motivation. Women in the black world are given much more responsibility as economic providers (Pleck, 1978).

Simple Correlations between Attitudes and Level of Economic Well-being

Although the crucial test for the causal role of attitudes in intragenerational economic mobility is whether their values in a given year relate to subsequent change in economic status, it is useful to examine first some correlations between the level of attitudes and the level of economic well-being measured at the same point in time. Indications that sense of personal effectiveness, motivation and orientation toward the future are greater among those with higher personal and family incomes and not on welfare and indications that fear of failure is greater among the least well-off confirms the

Table 5.1

Means and Standard Deviations of Attitudinal Items and Indices

Attitudinal Variable	White Men	Black Men	White Women	Black Women
Efficacy Index	.656	.521	.547	.302
	(.384)	(.402)	(.386)	(.370)
Sure Life Work Out	.657	.511	.487	.239
	(.471)	(.496)	(.493)	(.425)
Carry Out Plans	.654	.532	.608	.366
	(.463)	(.487)	(.478)	(.470)
Control Over Life	.827	.745	.782	.670
	(.379)	(.437)	(.414)	(.471)
Challenge/Affiliation	.725	.592	.611	.641
	(.347)	(.371)	(.335)	(.303)
Do Better vs. Friends	.775	.713	.770	.902
	(.418)	(.453)	(.422)	(.298)
Job With Thinking vs. Nice Co-Workers	.674	.471	.452	.381
	(.469)	(.500)	(.499)	(.486)
Challenge/Power	.742	.733	.812	.824
	(.336)	(.335)	(.271)	(.290)
Do Better vs. Respect for Views	.819	.834	.909	.880
	(.386)	(.373)	(.289)	(.325)
Job With Thinking vs. Job With Say	.666	.632	.716	.767
	(.472)	(.483)	(.452)	(.423)
Fear of Failure	.120	.131	.182	.266
	(.231)	(.241)	(.284)	(.326)
Anxious About Test	.373	.284	.491	.491
	(.311)	(.323)	(.311)	(.330)
Heart Beat Fast	.271	.260	.328	.400
	(.302)	(.334)	(.330)	(.371)
Worry About Failing	.487	.455	.532	.615
	(.331)	(.355)	(.339)	(.359)
Future Orientation	.502	.497	.420	.406
	(.352)	(.325)	(.319)	(.357)
Plan Ahead	.525	.437	.389	.347
	(.484)	(.483)	(.477)	(.473)
Save For Future	.482	.543	.481	.424
	(.459)	(.479)	(.472)	(.481)
Think About Future	.498	.510	.389	.447
	(.489)	(.495)	(.471)	(.496)
Number of Observations	579	314	208	410

conventional wisdom and establishes some confidence in the attitudinal measures available in the PSID.

Simple (zero-order) correlations between the various attitudinal indices (measured in 1972), education, test score and various measures of 1972 economic status generally conform to these expectations (Table 5.2). Correlations between education, test score, and the efficacy index, the control over life item, the challenge/affiliation index and future orientation are almost always positive although generally modest in size.

Correlations between fear of failure and the education and test score outcomes are all negative, while the theoretically ambiguous correlations between those outcomes and the challenge/power index are all less than .10 in absolute value.

The signs of the correlations between the attitudinal measures and the measures of economic status (the natural logarithms of annual earnings, family income, income/needs, and welfare income) almost always conform to expectations although the magnitudes of these correlations are generally smaller than the correlations between the attitudes and education and test score. In almost every case, individuals within each of the four groups with larger earnings, family incomes, family income/needs and smaller amounts of welfare income were more likely to have a greater sense of personal efficacy, a greater sense of control over their lives, greater orientation toward the future, and more of an orientation toward challenge versus affiliation. The exceptions occurred for the welfare income correlations, but the expected sign of this simple correlation is somewhat ambiguous since additional dollars of welfare increase family income, but also are a sign of economic failure.

Correlations between positive outcomes and test anxiety were generally negative, while correlation between the outcomes and the challenge/power contrast were low and of mixed signs.

Effects of Motivation on Subsequent Change in Economic Well-Being

The key test of the causal role played by the attitudes is whether they successfully distinguish those who do better subsequently from those who do worse over time. The following sections report on the results of a series of such

Table 5.2

Zero-Order Correlations Between Attitudes and Various Measures of Level of Economic Status

Attitude Measure (in 1972)	In 1972 Earnings	In 1972 Family Income	In 1972 Family Income/ Needs	In 1972 Welfare Income	Education	Test Score
Efficacy Index	.135 .177 .269 .194	.116 .148 .224 .093	.216 .260 .308 .060	-.156 -.377 -.257 -.185	.266 .189 .436 .075	.144 .113 .263 .298
Control Over Life	.140 .035 .260 .199	.065 .008 .175 .196	.100 .184 .275 .174	-.043 -.044 -.281 -.058	.057 .159 .300 -.054	.049 .117 .172 .154
Challenge/Affiliation	.089 .139 .180 -.049	.122 .196 .123 .044	.165 .298 .216 .043	-.065 -.221 -.180 .038	.273 .197 .221 .278	.193 .343 .154 .134
Challenge/Power	.063 -.073 -.052 -.094	.077 -.138 .015 -.088	.044 .029 -.041 -.108	-.028 -.069 .010 .032	-.057 -.032 -.057 -.033	-.075 -.012 .050 .071
Fear of Failure	-.019 -.042 -.268 -.133	-.008 -.160 -.081 -.005	-.035 -.092 -.175 .023	018 -.105 .187 .070	-.278 -.320 -.254 -.046	-.263 -.344 -.260 -.250
Future Orientation	.082 .122 .120 .146	.000 .105 .132 .170	.093 .053 .156 .187	-.140 .032 -.227 .008	.222 .088 273 .321	.206 .119 .086 .235

Key: .xxx White Men, n=579
.xxx Black Men, n=314
.xxx White Women, n=208
.xxx Black Women, n=410

NOTE: Samples consist of household heads age 21-50, in 1972, whose 1969-71 average annual earnings were in the bottom half of the male average earnings distribution.

tests. "Success" is defined in a variety of ways: labor market outcomes such as earnings and work hours; family outcomes such as total family income and income/needs, and the components of these measures; welfare-related outcomes such as growth in welfare income and change in welfare dependency; and a set of more qualitative outcomes such as whether the household head has left or entered a state of working and not receiving welfare or has left or entered a state of having been unmarried, with children and receiving welfare. It is not expected that any of the attitudinal measures will have consistently significant effects across all of these outcomes. Indeed, chance alone would lead one to expect that some of the many effects may appear statistically insignificant even if the effect in the population is a real one. But on the other hand, for us to believe that an attitude really has an effect on subsequent economic well-being, there ought to be a consistent pattern of effects across several outcomes and across several different variations of the same outcome.

Our initial and most comprehensive look at the effects of the attitudinal measures is summarized in Table 5.3. The full set of results for all the predictor variables (including the demographic control variables) is given in Appendix Table F.1 for measures of growth in annual earnings between 1972 and 1976, and for growth in family income and income/needs for that same time period. Appendix Table F.2 reports analogous information for the outcome measures of growth in welfare income and the fraction of family income that is made up by welfare income.

It is difficult to summarize so many results simply, but a few broad generalizations appear appropriate. First, none of the attitudinal measures comes close to having consistently significant effects across all of the subgroups and across all the outcome measures. Indeed there are almost as many coefficients with signs contrary to expectations (i.e., negative for all income measures except welfare, positive for the fear of failure measure) as signs that agree with expectations. Nor is it the case that an attitudinal measure has

Table 5.3

Summary Regression Results on the Effects of Attitudes on Various Income-Related Outcomes

Attitude Measure	Growth in Annual Earnings 1972-1975				Growth in Family Income 1972-1976				Growth in Family Income/Needs 1972-1976				Growth in Welfare Income 1972-1976				Growth in Welfare Dependency 1972-1976			
	Men		Women		Men		Women		Men		Women		Men		Women		Men		Women	
	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black
Efficacy Index				+										+++		-		+++		
Control Over Life				--				---				---			+					
Challenge/ Affiliation				+++				+++				+++		++		--		+		---
Challenge/ Power				++						+						--				--
Fear of Failure																			++	
Future Orientation		-					--				--	---			+++	-			+	

+ Positive and significant at .10 level — - Negative and significant at .10 level
++ Positive and significant at .05 level — -- Negative and significant at .05 level
+++ Positive and significant at .01 level — --- Negative and significant at .01 level

consistently significant effects across all of the groups for any one of the outcome measures.

However, there does appear to be one attitudinal index that has consistently significant effects for one subgroup: black women who expressed a preference for challenging outcomes over affiliative outcomes did considerably better subsequently. Their own labor earnings grew at a significantly higher rate than for otherwise comparable black women that did not express those preferences for challenge above affiliation. Their family income and income/needs also grew at a higher rate and their welfare income and welfare dependency ratios growth were more negative.

There was almost no support for the hypothesis that individuals who began the period with a greater sense of personal effectiveness did better subsequently. Every one of the four significant coefficients on the "Control Over Life" item were of the wrong sign (negative for the labor and total income measures, positive for the welfare income measures). Two of the four significant coefficients for the efficacy index were of the wrong sign. Not much should be made of a few coefficients with wrong signs, but overall, Table 5.3 provides no consistent support for the hypothesis that sense of personal effectiveness is positively related to subsequent improvement in economic status.

Of the remaining three indices, future orientation was the only one with several significant effects, but these were also generally of the wrong sign, indicating that those who began with a strong orientation toward the future did worse than others. There were very few significant coefficients for either the fear of failure or challenge/power indices.

Also of interest are the results for the basic demographic variables (shown only in Appendix Tables F.1 and F.2). In general, they have much more consistent and interpretable effects than the attitudinal variables. Income growth for older respondents was lower than for younger ones, reflecting the well-known tendency for incomes to grow most rapidly at the youngest ages. Higher levels of education appeared to lead to higher incomes for some of the groups and some of the outcomes. A final set of interesting demographic results is that family incomes appeared to grow most rapidly in the South--hardly a surprising result for the 1970's.

We investigated the robustness of this set of results by: relating the attitudinal variables to a set of other outcome measures, shortening the period over which change is measured from 4 to 1 year, and allowing for an extensive set of interactions between the attitudes and age, education, the presence of young children and among the attitudinal indices themselves. Each of these is described in subsequent sections, along with a justification for why each might be important.

Effects of Attitudes on Other Outcomes. Although the earnings, family income and welfare income outcomes are the most crucial indicators of subsequent economic success, it is useful to examine a set of other outcomes that may shed light on the ways in which the attitudes operate by decomposing general outcomes (e.g., work and welfare income receipt) into more detailed components. Appendix Tables F.3 and F.4 detail the results of regressions of a set of such detailed outcome measures on the attitudinal indices and the demographic control variables included in the other regression analyses. These outcomes are: growth in work hours, growth in dollars of private help received from outside the household, growth of income of others in the household, changes to and from the state of working and not receiving welfare, changes to and from the state of having young children in the household and receiving welfare, change in the number of adults in the household and changes to and from the state of being married or living together.

A first point of interest is whether these other outcomes illuminate the ways in which the challenge/affiliation contrast "works" for black women. That index has a strong, positive effect on growth in work hours for black women--a result that suggests its strong effects on the growth in the earnings of these women comes primarily from labor supply responses rather than exclusively from increases in hourly rates of pay. The significantly higher growth in family income for the more motivated black female heads is obviously not due to increases in private income sources from those outside of the household; the relevant coefficient in Table F.4 is negative and significant. In fact, the only other positive and significant coefficient on the table for that index and that subgroup occurs for the "Whether Married or Living Together in 1977" variable. Thus, the economic status of motivated black female heads is improved by two factors: higher than average growth in personal earnings, brought about mostly by increase in labor supply, and a higher than average likelihood of marriage during the five-year period with its boost to family income because of the husband's income.

There were a few other statistically significant results in these regressions involving other outcomes, but none conformed comfortably to any discernible pattern. The efficacy index has positive and marginally significant effects on the growth in work hours of black women and more significant effects on the chance that they would change to the state of working substantially and not receiving welfare. The results presented in Table 5.3 and its corresponding Appendix tables hinted that this might be the case, since efficacy effects on work-related outcomes were generally positive, and effects on welfare-related outcomes were generally negative for black women. The entire pattern of coefficients is not consistent enough to warrant a great deal of confidence in these results.

Nor is there a sensible pattern to the other scattered significant effects that are found in other parts of these tables.

One-Year Change in Outcomes. All of the results on the effects of attitudes on outcomes presented thus far have used a measure of change defined over the four year period from 1972 to 1976. Such an extensive time period would seem most appropriate for the research topic under investigation, since it is the more permanent, longer run outcomes that matter the most. Duncan and Morgan (1981) found that sense of personal efficacy had a stronger effect on four-year changes in earnings than one-year changes for young white men. Duncan and Liker (1983) did not find stronger effects for the longer time period in their investigation of the effects of efficacy on the earnings of a broader age range of white men.

As a part of the investigation of the robustness of our findings we include, in Appendix Table F.5, results for regressions of one-year change from 1972 to 1973 in earnings, family income and family income/needs on the attitudinal indices. The demographic control variables included in the prior regressions are also included in the regressions, but results for them are omitted from Appendix Table F.5.[11]

The pattern of effects is quite different for the shorter time period. The significant, positive effects of the challenge/affiliation index on five-year outcomes observed for black women do not hold for one-year change--all of the corresponding coefficients are negative but statistically insignificant. In contrast, some of the other indices have more consistent, positive effects for one-year change. The efficacy index has positive and significant effects on all these outcomes for black men. The index of future orientation has significant positive effects for the earnings growth of black men. Other significant effects are observed for the challenge/power index for black women.

What should be made of these findings? A first point to note is that most of these findings are accompanied by corresponding anomalous findings for other groups. For example, although the efficacy index have positive and significant effects for some groups, it has negative and significant effects for others. So it appears to be the case that the shortened time period has lead to _different_, but _not more consistent_, results.

Interactions with Attitudes. Equations above assume simple additive effects of attitudes on economic trajectories with one exception. The sample was subdivided by race and sex under the assumption that processes might be different across these four groups. The results do not show much evidence of consistent differences in attitudinal effects across these groups. The division of the sample by race and sex is only one way of slicing the sample. There still may be some subgroup for whom the attitudes have a strong and consistent effect.

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[11] Growth rates were truncated at +1.0 and -1.0 to reduce the effect of extreme cases. Duncan and Liker (1983) found that efficacy effects were quite sensitive to the treatment of extreme cases.

In an earlier paper (Duncan and Liker, 1983), we argued that personal control is not likely to influence a person's economic success if that person's life chances are severely constrained by the economic system. For example, a person locked into a job because he or she has specialized skills that are not transferable to other companies, or because the market is generally tight for non-skilled labor, has little control over economic mobility whether or not he or she shows initiative. These constraints may be particularly pronounced among those with little education. Another type of constraint, confined primarily to female heads, is the dual obligation of parent and breadwinner. Without money for day care, going out to work full time may simply not be an option for many women. In this case, attitudes cannot be very influential. These arguments suggest interactions between attitudes and education, and attitudes and the number of children at home among women. That is, the effects of attitudes on economic mobility will depend on the levels of these other factors. These interactions were tested in regression equations with the results summarized in Regression #1 and Regression #3 of Table 5.4. Appendix Table F.6 reports the full set of coefficients and standard errors.

Two other sets of interactions were also tested as shown in Table 5.4. In his analyses of the effects of personal control on economic mobility among men, Andrisani (1977) was limited to the age group in the National Longitudinal Studies who were generally younger or older than the sample studied here. He found that efficacy had roughly equal, positive and significant effects on the hourly earnings changes of young black and white men (but no such effect on annual earnings changes) and roughly equal, positive and significant effects on the annual earnings of older black and white men (but no such effect on hourly earnings). Duncan and Liker (1983) found no overall effects of personal efficacy on earnings among white men, but there appeared to be some effects on the short-

Table 5.4

Summary Regression Results on Interactions between Attitudes and Age, Education and Whether Young Children

	Growth in Annual Earnings 1972-1976				Growth in Family Income 1972-1976				Growth in Family Income/Needs 1972-1976				Growth in Welfare Income 1972-1976			
	Men		Women		Men		Women		Men		Women		Men		Women	
	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black
Regression #1:																
Efficacy X Education	++	--		+++		---		+++	++	--		+++		++		
Control X Education	--						-				--			-		
Chal/Affil X Education								--				--			+	
Chal/Power X Education	-			---												+++
Regression #2:																
Efficacy X Age	---	+++		---	--	+			---					--		+++
Control X Age	++	--	+			-		+++	+	-		+++		++		+++
Chal/Affil X Age							-				-			---		
Chal/Power X Age	+++		+		+		+		+		+			++		---
Regression #3:																
Efficacy X Whether Young Children				+++				+						+++		---
Control X Whether Young Children								+				++	-			--
Chal/Affil X Whether Young Children		--														
Chal/Power X Whether Young Children	-													+	++	
Regression #4:																
Efficacy X Chal/Affil		+					-			+	-				+	
Control X Chal/Affil	--				--				--			+			--	
Efficacy X Chal/Power				---				--				-		-		+++
Control X Chal/Power				---		-				-			+	++		

NOTE: Other variables included in each set of regressions: Whether South, ln City Size, Age, Education, Test Score, Fear of Failure and Future Orientation.

+ Positive and significant at .10 level	- Negative and significant at .10 level
++ Positive and significant at .05 level	-- Negative and significant at .05 level
+++ Positive and significant at .01 level	--- Negative and significant at .01 level

run change in annual earnings of the older more experienced workers. These effects did not hold up when the period over which change was measured was expanded from two to five years. However, an age interaction did appear over the longer time period for growth in the hourly earnings. Hence, we test here interactions between attitudes and age. The second set of interactions are more clearly dictated by theoretical considerations. As described above, expectancy theories (Atkinson, 1964) predict interactions between the basic motive to achieve and expectancies of success. In Regression #4 we consider the interactions of achievement motivation and both personal control and personal efficacy.

All of these results can be summarized quite simply: there are no consistent patterns of interaction. For example, for interactions between efficacy and education, 9 out of 16 interactions are significant at the .05 level or better. Of the 9, 6 are positive as predicted and 3 are negative contrary to our prediction. For the education by personal control interactions, 4 coefficients are significant at the .10 level and all of these are opposite the predicted direction. Even for the efficacy-age interactions, where previous work indicated the likelihood of significant effects, the significant effects of the efficacy index are often marked by significant effects of the opposite sign for the "control over life" item. One can work through the results of the table in this way and find little consistency for interactions across outcome measures, across the groups by sex and race, or within columns across attitudes.

Effects of Economic and Noneconomic Events on Changes in Efficacy

The cross-sectional relationship between socioeconomic status and psychological well being is one of the best documented relationships in social science research. We have already seen evidence of correlations between various measures of economic status and motivation in the PSID sample. However, the analysis of the effects of motivation on subsequent economic change generally did not suggest revision of the null hypothesis: the attitudes investigated appear not to be a source of upward or downward mobility. Beyond this, there are two possible explanations for the correlation between status and motivation.

One explanation is that some third variable influences both economic status and motivation. For example, parental attitudes might be a source of the attitudes of their children and also lead parents to invest to varying degrees in education for their children which leads to economic mobility through their life course. This particular example would lead to a correlation between the children's attitudes in adulthood and their economic status even if their attitudes did not cause their economic success and their economic status had no effect on their attitudes. The analysis in Chapter 4 suggests this process is not generally the case, but there are many other possible "third variables."

A second possibility is that attitudes change as economic status changes and that hypothesis is examined in this section. A number of studies link attitude change to economic status change (Pearlin et al, 1981; Cohn, 1978; Andrisani, 1978). The advantage of this change analysis over simple correlations at a point in time is that "third variable" explanations can be ruled out (Liker, Duncan, and Augustyniak, 1983). This can be shown by a simple series of equations:

$$(5.3)\quad E_{1i} = a_1 + bEarn_{1i} + cZ_i + u_{1i}$$

$$(5.4)\quad E_{2i} = a_2 + bEarn_{2i} + cZ_i + u_{2i}$$

Then, taking first differences:

$$(5.5)\quad \Delta E_{2i} = a_2 - a_1 + b\Delta Earn_{2i} + u_{2i} - u_{1i}$$

where ΔE_{2i} is the difference in efficacy scores between time 1 and time 2 for the i^{th} individual; and $\Delta Earn_2$ is the change in earnings between time 1 and time 2 for the i^{th} individual.

What we have done here is to express each individual's level of efficacy as a function of their economic status level at each of two time points. In addition, we assume some set of third variables, Z, affect their efficacy at each time point. These third variables are assumed to be unchanging characteristics (e.g. IQ, parental background, stable personality characteristics, education, etc.). These third variables are also assumed to have unchanging effects on efficacy at each time point and under these two sets of assumptions, the "Z" variables will cancel out when we take the difference between equations 5.3 and 5.4 and obtain equation 5.5.

The equation we actually estimate is not identical to equation 5.5 for two reasons. First, at least one third variable appears not to have a constant effect on efficacy over time. That is, it appears that efficacy levels change as part of the natural maturity process, so we include age as a proxy for maturation. Second, we include other noneconomic life events that may influence efficacy changes (i.e. births, becoming disabled, and involuntary residential moves such as evictions between 1971 and 1972).

As the dependent variable for this phase of the analysis, we focused on personal efficacy change between 1971 and 1972. Unfortunately, other motivational components (motives and fear of failure) were not available for years other than 1972. But personal efficacy is the major theoretical focus of this investigation. The choice of time periods, 1971 and 1972, were planned initially to provide a coherent account of the reciprocal relationship between efficacy and economic status. That is, if efficacy in 1972 affected subsequent economic change, the question then becomes: Where did efficacy in 1972 come from? Prior investigations suggest that efficacy is likely to respond to recent life events (Duncan and Liker, 1983) so we looked at change from one year to the next rather than longer time spans.

The independent variables of primary interest are measures of economic status change. We considered combining the economic change measures into a single index; however, this assumption implies that all forms of economic status are equally salient for the personal efficacy of the adult sample. This assumption is contrary to theoretical perspectives on the development of self-conceptions (Rosenberg and Pearlin, 1978) and empirical results (Andrisani, 1978; Cohn, 1978; Duncan and Liker, 1983; Kessler, 1982). Not all forms of economic success are equally salient to each subgroup examined, and there are reasons to expect the different subgroups to react differently to a given measure of economic success.

In a recent paper Kessler (1982) examined the zero-order correlations between measures of socioeconomic status --occupational prestige, personal earnings, and other income -- and measures of psychological well-being with data from eight epidemiologic surveys. Kessler compared these correlations for three subgroups --men in the labor force, women in the labor force, and women homemakers. The results showed the strongest correlate of well being for men is personal earnings; other sources of income have no association with psychological health. For women, particularly homemakers, education is the single largest correlate of well-being. Also, for women, other sources of income are more strongly related to psychological well-being than personal earnings.

These results are consistent with research on the psychological effects of income loss in the Great Depression (Elder, et al. 1983). Family income loss was largely made up of the loss of personal earnings of men and it was primarily men who were adversely affected by such loss. Our culture stresses economic achievement for men, not women. Hence, economic failings are more personalized by men, while women are apt to feel that it is not their obligation to be successful as economic providers.

The effects of economic status change on efficacy change shown in Table 5.5 are consistent with prior research but also yield some unanticipated differences across subgroups. By and large, changes in personal annual earnings and work hours of these household heads affect efficacy change for men, not women. Changes in income from others (other household members) and changes in residual income (including dividends and interest) have no effect in most instances. The only exception is the positive and significant effect of "income from others" on the efficacy of black women. Hence, black and white men are responsive to their own career success, while for these black female heads trying to keep their families afloat, income from any source enhances feelings of personal effectiveness.

Table 5.5

Effects on the Change in Efficacy, 1971-1972, of Changes in Economic Status and Non-Economic Life Events

	White Men	Black Men	White Women	Black Women
Age	-.001 (.002)	-.001 (.003)	.003 (.003)	-.009** (.003)
Change in Economic Status				
Change in earnings	.011** (.003)	-.007 (.007)	-.008 (.005)	-.017+ (.009)
Change in work hours	-.002 (.003)	.011* (.005)	.007+ (.004)	.008+ (.005)
Change in unemployment hours	-.008 (.006)	.004 (.009)	-.005 (.007)	.002 (.005)
Change in income from others	-.010 (.007)	-.002 (.011)	-.000 (.008)	.015+ (.008)
Change in residual income	-.005 (.003)	-.010 (.011)	.002 (.006)	.006 (.012)
Change in welfare income	.004 (.024)	.005 (.022)	-.042+ (.024)	-.002 (.014)
Change in family needs	-.021 (.033)	.003 (.048)	.077 (.057)	-.091* (.046)
Involuntary job loss	-.082 (.073)	-.085 (.091)	-.132 (.129)	.324* (.142)
Moved for a job	-.025 (.066)	.286** (.095)	.099 (.122)	-.102 (.539)
Non-Economic Life Events				
Birth	.008 (.057)	-.146 (.095)	-.030 (.246)	-.081 (.118)
Became disabled	.031 (.489)	-.045 (.391)	.082 (.181)	.197 (.170)
Involuntary move	-.104 (.074)	-.441** (.153)	.214+ (.110)	.064 (.090)

**Significant at the 1% level.
*Significant at the 5% level.
+Significant at the 10% level.

Efficacy for black and white men changes with changing labor force experiences, but the labor force characteristics salient to these men differ.

Many different specifications of these efficacy change equation were tested, e.g. with annual earnings alone, work hours alone, unemployment hours alone, and all two-way combinations of these variables and the results did not change. Unemployment hours were not a significant factor in the efficacy of black or white men. Black men were sensitive to the availability of work hours, while white men were most affected by the total cash reward from their jobs. That black men were more concerned with the availability of work is also suggested by the variable "moved for a job." Moving for a job meant there was a job to move to, perhaps even a relatively desirable job. This variable had a highly significant effect for black men (t = 3.01). Feelings of personal control increased when black men moved to take a new job. We find no effect of job-related mobility for white men.

Beyond the personal work experience of these black and white men, no other factor examined has a substantial impact on personal efficacy for white men, and only one other factor is significant for black men. Black men who were forced to change residences involuntarily (e.g. through eviction) felt substantially less efficacious as a result.

For white women, the overall equation does a poor job of accounting for changes in their personal efficacy. No factor examined has a significant effect at the .05 level, and three of the thirteen factors examined are marginally significant at the .10 level. Two of these three factors have effects in the anticipated directions. Women whose work hours increased experienced an increase in personal efficacy between 1971 and 1972 and women who needed to rely more heavily on welfare income over this period felt less in control of their lives as a result. Contrary to intuition, women forced to move involuntarily experienced more positive feelings of personal control as a result.

For black women, many more factors have significant effects, although some of these appear anomalous. Most of the significant factors were economic events. Black women whose work hours increased, who received greater amounts of income from others, and whose family economic needs decreased experienced an enhanced sense of personal efficacy as a result. In short, as economic hardship declined, personal efficacy was enhanced. Nonetheless, two other factors seem contrary to this pattern. Black women whose personal earnings increased experienced reduced efficacy and black women who were forced to leave their jobs against their will had higher efficacy as a result.

In sum, most of the results are consistent with prior research and suggest that economic status changes can cause personal efficacy to change. For men, their own work experiences are particularly salient to their self-concepts. Black female heads are particularly sensitive to the ratio of income to family needs and the availability of work. For white female heads, economic factors are relatively unimportant to their feelings of personal efficacy and the factors we examined shed little light on the causes of efficacy change for this group.

APPENDIX A

DETAILS OF MOTIVATIONAL INDICES AND THEIR CONSTRUCTION

This appendix provides a detailed discussion of the rationale for index construction. It reviews the literature used to develop the indices and provides a discussion of the empirical work used to test the validity of the indices. The empirical properties of the items and indices are illustrated using data on the subsamples of low-income household heads used in the short-run analyses in the report. Patterns for the parents of children analyzed in the intergenerational portion of this report are similar.

Personal Efficacy Index and Locus of Control

The concept of "locus of control" as developed by Rotter (1966) refers to a way of perceiving the relationship between individuals and their environment. The "external" type sees the environment as constraining, and even controlling individual actions--the environment controls our fate. The "internal" type sees individuals as the masters of their own fate--the environment poses few if any insurmountable obstacles. Andrisani (1978), following the distinction originally made by Patricia Gurin, noted that some of the items in Rotter's scale referred to statements about the general public's control over life, while others asked people about their own personal abilities to control their lives. Factor analyses showed this distinction meaningfully distinguished two factors which have been termed respectively "control ideology" and "personal control."

Three items from the PSID have been used as measures of personal control or efficacy. These items are asked of household heads in most of the years of the panel closely resemble items from the Rotter index, which are used by Andrisani in his investigations. Andrisani (1981) argues that these particular items do not directly get at the essence of personal control. Since they are so crucial to the analysis, these questions are reproduced here:

1) Have you usually felt pretty sure your life would work out the way you want it to, or have there been times when you haven't been very sure about it?

2) When you make plans ahead, do you usually get to carry out things the way you expected, or do things usually come up to make you change your plans?

3) Would you say you nearly always finish things once you start them, or do you sometimes have to give up before they are finished?

Like the original Rotter items, each question poses two alternatives and respondents normally choose one of the two. If respondents feel that they fall somewhere in between and volunteer an equivocal response, their response is coded into one of three middle categories. Equivocal responses are rare (generally one or two percent) and for our analyses have been collapsed into one middle category. Responses are scored 1 for a positive response, .5 for an equivocal response, and 0 for a negative response indicating lack of personal effectiveness.

Dickinson (1972) reports on extensive factor analyses for 17 of the attitudinal items in the 1972 wave of the panel and finds the above three items consistently loading on one "efficacy" factor for white men, black men, white women, and black women. Also loading on the same factor is a satisfaction with self item. Those people who feel ineffective also feel dissatisfied with themselves, a result which confirms the salience of "personal efficacy" as a valued aspect of people's self-concepts.

By using factor analysis in this way, Dickinson is examining the internal consistency of these items. A factor will emerge if the correlations among the items are consistent and significantly greater than the correlations between the efficacy items and other attitudinal items examined. These results are convincing as far as they go, but we decided to extend the analysis in two ways.

First, we examined these items with respect to "external validity," that is, the extent they correlated in reasonable ways with the economic outcomes with which theory says they are correlated. If the items indeed measure one underlying factor, we would expect their correlations with the economic outcomes to follow a consistent pattern.[32]

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[32] The tests of internal and external validity can be performed simultaneously with appropriate statistical tests using confirmatory factor

Second, we extended the analysis to look at what we thought might be a fourth "personal efficacy" item not considered by Dickinson:

"Which of these two statements comes closer to the way you think?

a) Sometimes I feel that I don't have enough control over my life.
b) What happens to me is my own doing."

A person responding with "b" scores 1, while a person responding with "a" scores 0. The few equivocal responses were coded .5. This item is only included in the 1972 wave so it can not be used in the analysis of attitude change.

Our concern with "external validity" was largely motivated by questions raised about one of the three basic personal efficacy items. The third item on whether people finish things once they have started them was found to be the least reliable efficacy item in a study focusing on white men (Duncan and Liker, 1983). In addition, correlations in a variety of analyses suggest it may not measure efficacy but gets more at perseverance.

Finally, Gurin, Gurin and Morrison (1978), using data from ISR's 1972 National Election Study, reported that the question, "Sure life works out" correlated .32 with the personal control dimension of the Rotter I-E scale and the question on plans working out correlated .40 with the same dimension. While these items appear to have construct validity, the "finish things" item was not included in this study and has not been validated in this way.

Using the sample compiled for the intragenerational analysis, we examined each of the three efficacy items as they relate to the economic outcomes discussed in Chapter 5. The results showed a consistent pattern of correlations with the first two items. Those persons who generally feel "pretty sure their life would work out" and "carry out things" as they expect had higher personal earnings, family income, and were not as likely to supplement their income with welfare compared to their more pessimistic and doubtful counterparts. This pattern did not hold for the "finish things started" item where indeed the

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analysis (Joreskog and Sorbom, 1979). We simply did by eye what confirmatory factor analysis does mathematically since we felt the patterns were clear enough in this particular case to avoid more costly and time consuming methods.

correlations were opposite the expected signs. Based on this evidence, we decided to exclude the "finish things" item from further analysis and base the efficacy index on the first two items.

The correlations between the efficacy index which is an average of these two items, the two component items, and the item specifically dealing with "control over life" are presented in Table A.1. The "sure life work out" and "carry out plans" items correlate with each other in the range of .26 to .36 depending on the subgroup considered. The "control over life" item correlates with each of these two items at lower levels, generally around .10. These correlations, as well as correlations with economic outcomes not shown here, led us to conclude that the "control over life" item should not be included in our "efficacy index," and we include this as a separate independent variable.

Achievement Motivation Indices

The achievement motivation theory developed by McClelland and his colleagues (Atkinson, 1964) argues that stable personality characteristics developed in childhood influence the "need for achievement." Persons with a strong need tend, other things equal, to strive for achievement, while those low on this personality characteristics will be less motivated. The "other things equal" clause is important here since Atkinson's theory stresses other things are generally not equal. Specifically, people also vary in the opportunities they face: some face prospects of opportunities with higher incentive values than others. In addition, people vary in their "expectancy of success" in the endeavors they undertake. It is the combination of high achievement motivation, high perceived incentive value, and a high perceived probability of success that is most motivating. If any one of these three factors is zero, motivation is zero.

McClelland and his associates (1961) add to the Need for Achievement (n Achievement), the Need for Power (n Power) and the Need for Affiliation (n Affiliation). The logic of how all three needs combine with perceived incentive value and expectancy of success in any particular instance is identical for all

Table A.1

Correlation Matrix of Efficacy Items and Index

	Efficacy Index	Sure Life Work Out	Carry Out Plans	Control Over Life
Sure Life Work Out	.83 .82 .80 .81			
Carry Out Plans	.82 .81 .79 .84	.36 .34 .26 .36		
Control Over Life	.15 .11 .23 .08	.13 .09 .27 .11	.12 .10 .10 .02	

Key:
.xx = White Men, n=579
.xx = Black Men, n=314
.xx = White Women, n=208
.xx = Black Women, n=410

three needs. Individuals with high n Power and high n Affiliation throughout adult life are more apt to be motivated by power and the desire for warm, friendly relationships, respectively.

These concepts were operationally defined as a series of items included in the PSID by Veroff et al. (1971). The items reflect the variety of ways the need for achievement might be manifested, including striving for success at work above all else, valuing achievement by one's children, and becoming excessively anxious over the possibility of failure when taking tests. Veroff et al. (1971:52) describe the need for achievement as an umbrella concept:

> " . . . the "achievement motive" has grown from a unitary concept with one meaning for all population groups to an umbrella concept covering many different population groups. Implications for the measurement of achievement motivation are immense. No longer can one hope to make accurate predictions about achievement behaviors on the basis of one motivation score derived in the same way for all."

Despite this caution, they note that the pragmatic costs of carrying many different items through the analysis may outweigh the conceptual advantages and they combine all of the various achievement motivation indices into a single index. This index adds most of the items that deal directly with the motive to succeed, but subtract items dealing with "the fear of failure." Their rationale is that the most effective person is driven to achieve, but not overly anxious about the possible consequences of failure.

The achievement motivation items consist of a series of two-way comparisons. Some items give people the option of preferring achievement to affiliation, others compare achievement to power, and a third set compare power to affiliation. An example of the first type is:

> "Which of these is truer for you, would you like to have more friends or would you like to do better at what you try?"

We tested a variety of indices, including the one developed by Veroff et al. (1971), as they related to economic outcomes in 1972 and changes in economic status over time. After extensive investigation, we settled on three separate indices as shown in Tables A.2 and A.3 because they appeared to be measuring different dimensions of motivation.

Table A.2 includes two indices, comprised of two items each, using data from the intragenerational analysis. The first index is based on a comparison of the importance of challenge relative to affiliation; items ask whether respondents would prefer to do better versus have a lot of friends and whether they would prefer a job requiring thinking or one with nice co-workers. The second index is based on a comparison of challenge relative to power. Questions ask whether they prefer doing better versus having their views respected and prefer a job with thinking versus a job where they have say.

A fear of failure index (Table A.3) is based on three items on how people react to tests. Those scoring high on fear of failure tend to be uneasy or upset when taking tests, their hearts beat fast when they take tests, and they worry about failing tests.

Table A.2

Correlation Matrix of Motivational Items and Index

	Challenge Affiliation Index	Do Better vs. Friends	Job With Thinking vs. Nice Coworkers	Challenge Power Index	Do Better vs. Respect for Views
Do Better vs. Friends	.75 .75 .67 .61				
Job With Thinking vs. Nice Coworkers	.81 .80 .78 .87	.22 .21 .05 .14			
Challenge/Power Index	.09 .35 .11 .20	.07 .30 .03 .18	.07 .25 .13 .13		
Do Better vs. Respect for Views	.14 .28 .09 .11	.14 .34 .12 .26	.08 .11 .02 -.02	.73 .71 .55 .70	
Job With Thinking vs. Job with Say	.01 .27 .08 .18	-.01 .15 -.04 .05	.03 .27 .14 .20	.83 .84 .85 .83	.22 .21 .02 .18

Key:
.xx = White Men, n=579
.xx = Black Men, n=314
.xx = White Women, n=208
.xx = Black Women, n=410

Table A.3

Correlation Matrix of Fear of Failure Items and Index

	Fear of Failure Index	Test Anxiety	Hear Beat Fast
Test Anxiety	.58 .63 .67 .66		
Heart Beat Fast When Taking Tests	.53 .63 .60 .64	.43 .55 .42 .54	
Worry About Failing Tests	.67 .67 .65 .70	.43 .55 .38 .46	.39 .42 .31 .39

Key:
.xx = White Men, n=579
.xx = Black Men, n=314
.xx = White Women, n=208
.xx = Black Women, n=410

Several points are worth noting on these achievement motivation items and indices. First, the fear of failure items all correlate substantially, but the correlations for the other two indices are generally very small. The items on the motive to achieve were initially chosen as alternative ways of expressing n Achievement. Some people will express this in one way and other people will express their motivational tendencies in another way. Therefore, they are not expected to correlate, and indeed ought not correlate if the theory is correct.

Future Orientation

As discussed above, the future orientation index has rarely shown any utility in predicting economic outcomes, however, based on theoretical arguments we included this measure in regression analyses. The three future orientation items follow the format of all other attitudinal items in the PSID, posing two

Table A.4

Correlation Matrix of Future Orientation Items and Index

	Future Orientation Index	Plan Ahead	Save for Future	Think About Future
Plan Ahead	.78 .67 .71 .78			
Save for Future	.68 .64 .66 .72	.30 .12 .23 .37		
Think About Future	.75 .70 .65 .72	.42 .22 .20 .36	.22 .16 .10 .22	

Key:
.xx = White Men, n=579
.xx = Black Men, n=314
.xx = White Women, n=208
.xx = Black Women, n=410

alternatives (scored 0 and 1) with intermediate responses scored .5. The items ask the respondents whether they "plan ahead," "save for the future" versus spend their money as they earn it, and "think a lot about things that might happen in the future." Responses to these three items are modestly correlated (ranging from .10 to .37). The index is based on an average of the three items. The correlations of the items and the index is given in Table A.4.

Correlations Among the Attitudinal Indices

In all, five attitudinal indices were examined. As shown in Table A.5, these indices are rarely correlated among themselves to any significant degree. This lack of association is important for two reasons: 1) The low correlation supports the argument that each index is measuring a distinct attitudinal orientation--if they were highly correlated it might be argued that they reflect

Table A.5

Correlation Matrix of All Attitudinal Indices

	Efficacy Index	Control Over Life	Challenge/ Affiliation	Challenge/ Power	Fear of Failure
Control Over Life[a]	.15 .11 .23 .08				
Challenge/Affiliation	.14 .08 .11 .07	.11 .11 .20 .04			
Challenge/Power	.05 -.08 .02 -.06	.09 .15 -.00 -.06	.09 .35 .11 .20		
Fear of Failure	-.17 -.02 -.17 -.15	.03 -.09 -.22 .00	-.08 -.18 -.10 -.04	.01 -.02 .08 .06	
Future Orientation	.22 .20 .16 .09	.05 -.05 .11 -.03	.17 .04 .12 .12	-.02 -.12 -.09 .05	-.07 .05 .01 -.02

[a] Single item.

Key:
.xx = White Men, n=579
.xx = Black Men, n=314
.xx = White Women, n=208
.xx = Black Women, n=410

a common underlying factor; and (2) Multicollinearity is not a problem when all five indices are entered into multiple regression equations.

Additional Measures for Intergenerational Analysis

A child being self-directed is a measure used in the intergenerational analysis since it directly pertains to motives parents would encourage in their children. The measure reflects preferences for children being self-directed or a leader rather than being either affiliated or conforming to authority. It is an index based on responses to two questions:

1) Which would you like your child to do most, be popular with his classmates, or be a leader?

2) Would you rather have your child be a leader or do the work his teacher expects?

Responses to eaah of these questions were scored 1 if the preference was for the child to be a leader, 0 if the preference was the other mentioned choice, and .5 if neither option mentioned was selected. The scores on these two questions were summed and then averaged. Mean values for this variable for the intergenerational sample are listed in Appendix Table C.2.

An additional measure used in the intergenerational analysis is another motive measure, power versus affiliation. This measure is based on reponses to the following questions:

1) Now I'll read some statements people use to describe other people. Suppose you were to hear them. Which would you most like to hear about yourself--(his/her) opinion carries a lot of weight among people who know (him/her) or people like to live next door to (him/her)?

2) Now these two. (He/she) is fun to have at a party, or people like to go to (him/her) for advise on important matters?

Responses indicating a preference for having an opinion that was important to others were scored a 1; selection of the other choice was scored a 0; and responses fitting neither were scored .5. Scores on the two questions were averaged. Mean values for the resulting variable for the intergenerational sample are provided in Appendix Table C.1.

APPENDIX B

DETAILED DESCRIPTION OF VARIABLES USED IN INTERGENERATIONAL ANALYSIS

Description of Control Variables

The predictor variables other than the parental attitude measures consist of three types of variables: demographic, parental background, and a third set of particular relevance to issues relating to the economic mobility of the poor. Many of these variables involve improved measurement over other studies due to unique aspects of the PSID data.

Demographic Variables. The set of demographic variables consists of measures of the age of the young adult in 1981 (AGE in 1981), and the race and sex of the young adult. Since the early years of adulthood are a time when labor earnings are rising rapidly, failure to control for age may result in biased estimates of the effects of the other predictor variables if there is any intercorrelation between the age of the young adult and the predictor variable. The age variable is a continuous one that takes on values from 25 to 30, the age range for our sample of young adults. The other demographic variables are controlled by doing separate analyses for white men, black men, white women, and black women. This permits a comprehensive search for differential effects by race and sex. These race and sex controls are unique in that most other studies of intergenerational attainment have been confined to samples of white men.[33]

Background Variables. The set of variables included in studies of intergenerational aspects of economic attainment includes two measures first used by Blau and Duncan (1967)--father's education and number of siblings. It also includes several measures subsequently introduced by other researchers studying the attainment process: mother's education, parent's IQ test score, religion, whether raised in a one-parent, mother-only home, city size of birth, region of birth, and family income. One standard variable excluded from the present analysis is father's occupation. The major reason for this exclusion is that problems of missing data were quite serious for this variable. The major source of information for this variable was the father's own report of his occupation. However, when no father was present when the study began, we turned to the young adult's report of father's usual occupation while growing up. This worked well in the case of sons. However, if a daughter had become a wife rather than a household head when she split, we had no report by her of her father's occupation. Since the proportion of young adults with no father present when the study began is fairly substantial, especially among the poor, a sizable number of daughters had missing data for father's occupation. Given the spurious correlation between having missing data on this variable and coming from a mother-only home, another variable included in the analysis, it was deemed best to exclude father's occupation from the list of predictor variables.

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[33] Jencks, et al. (1979) did examine race effects but not gender effects. Similarly, Alexander and Eckland (1974) examined gender effects but not race effects.

Two of the included variables--father's education and mother's education--rely on a similar method to the one just described to ascertain values. Fortunately, in the case of these variables there were enough sources of information so that missing data was not as serious a problem. The difference is that in the PSID we can get a report of parents' education for daughters who are wives from their husbands. In PSID couples, the husband is interviewed, and husbands provide information on wife's parents' education but not on wife's father's occupation. Our measure of father's education is taken from the father's own report when possible, then the young adult's report of father's education, and last the daughter's husband's report of her father's education. The same method is used to ascertain mother's education, with the exception of relying on the father's report of wife's education before depending on the young adult's report of mother's education. The variables measuring both father's and mother's education are continuous variables, ranging from 0 to 18.

The number of siblings variable is a continuous variable ranging from 0 to 17. Whenever possible the value on this variable is derived from the young adult's report of number of siblings. When this information is not available, which occurs most often in the case of young adults who are female and marry when they split from the parental home, information about the number of children in the parental household in 1968 is relied on.

Parent's IQ test score is a measure that applies to the parent who was head of the household in 1972, when the PSID collected such information. This measure may apply either to the father or to the mother, whichever was head of the household in 1972. It is based on a sentence completion test comprised of thirteen questions, with the values for the variable ranging from a low of 0 to a high of 13.

The variable indicating whether the young adult grew up in a mother-only home is based on the presence or absence of the father in the parental home from 1968 until the young adult leaves the parental home. The gender of the parental household head was the item of information used to determine whether or not the father was present; except in very rare cases the husband is designated as the head of the household if he is present in a married household. If at some time during the period from 1968 until the young adult left the parental home the head of the parental household was a female, the young adult was designated as coming from a mother-only home. There is some measurement error with this variable, however, since for the period prior to 1968 it is not known whether the young adult was living in a two-parent or mother-only home.

The family income measure is a per capita measure of permanent income. It is the ratio of average family income to average family needs, with needs based on the official poverty standard. Measures of annual family income and annual family needs, expressed in 1981 dollars, were summed over the years while the young adult was in the parental family and then the ratio of average family income to average family needs was formed. Since the young adult could have left the parental home any year between 1969 and 1981, this average could cover from one to thirteen years of income and needs information.

The religion measure reflects whether the young adult is Catholic. It is a dummy variable taking on a value of one if the religion reported by the parental head in 1968 was Catholic and zero otherwise. The region and city size measures are also based on 1968 information. The region measure is whether South, taking on a value of one if the geographic location of the parental household in 1968 was in the South and zero otherwise. The city size measure is a continuous variable reflecting the size of the largest city in the primary sampling unit that the parental household was in in 1968. This is information reported by the 1968 interviewer.

Welfare Measures. The third set of additional predictor variables reflects a measure of the extent to which the parental family was dependent on welfare. These variables are a set of dummy variables based on the level of parental welfare income/total income. This variable, parental family welfare income/total income, is a continuous variable ranging from zero to one. It measures the fraction of the income of the parental head and wife that was in the form of AFDC/ADC, SSI, other welfare, or food stamps. It is a permanent income measure since it averages both welfare income and total income of the parental head and wife over the years from 1968 until the young adult left the parental home. The values for these income measures are expressed in 1980 dollars, and the ratio of the average welfare income measure to the average total income measure is taken to form the final variable. Dummy variables are then constructed from this variable, with one dummy for the values 1-25%, another for the values 26-50%, a third for the values 51-75%, and a fourth for the values 76-100%. A value of 0 (parents never received welfare) is the excluded category in the full set of dummy variables.

Description of Outcome Measures

Our analyses focus on the economic status of the child in the early stages of adulthood. Measures of economic status include the level of family income (both adjusted and unadjusted for the minimal income needs of the family). labor income, work hours, labor force hours, welfare receipt, and welfare dependency. These measures provide a broad view of the economic situation of the young adult, allowing us to better understand the type of effects background and motivation have on economic well-being. Furthermore we are able to determine if these effects differ across subgroups, and for which economic outcomes. Because the economic situation during a single year may misrepresent the longer-run economic status of the young adult, whenever possible we use a multi-year perspective when determining the various economic outcome measures. This involves averaging the annual measures over the years in which the young adult is in his new household. Other measures of outcomes are more intermediate in nature. These include education, whether had a child at an early age, and whether married at an early age. The following provides a detailed description of all the outcome measures.

Young adult's family money income to needs: Annual needs represent the minimal income requirements of the family. The needs requirement is based on the same standard as the official poverty definition. Each annual needs report is inflated to 1980 dollars. Average family money income to needs is simply the average inflated family money income divided by the average family needs of the young adult while in his own household.

Young adult's annual earnings: Includes wages, bonuses, overtime, commissions, and the labor part of farm income, business income, and market gardening income. Each annual report is inflated to 1980 dollars. Labor income is averaged for the years the young adult is in his own household.

Whether young adult received welfare: Whether the young adult received any income from AFDC/ADC, Supplemental Security, other welfare, or food stamps in the years he was in his own household.

Young adult's family money income: Includes annual taxable income and total transfer income of the Head and Wife, and the taxable income and total transfers of others in the young adult's household. Each annual report is inflated to 1980 dollars. Family money income is averaged for the years the young adult is in his own household.

Young adult's work hours: The young adult's annual hours working for money. Work hours are averaged for the years the young adult is in his own household.

Young adult's labor force hours: The sum of the young adult's annual hours working for money and his annual hours unemployed. The sum of these annual hours is averaged for the years the young adult is in his own household.

Young adult's welfare dependency: Measures the percent of total income represented by welfare income. Both annual welfare income and annual total family money income (including food stamps) are inflated to 1980 dollars. Average welfare income to total income is simply the average welfare income divided by the average total family income for the years the young adult is in his own household.

Young adult's education: The highest grade of school finished.

Whether young adult had a child before age 20: Whether the young adult has a child in his household in 1981 who is old enough to have been born before the young adult reached age 20.

Whether young adult married before age 20: Whether the young adult was a wife or a household head with a wife prior to reaching age 20.

APPENDIX C

DESCRIPTION OF SAMPLE USED IN INTERGENERATIONAL ANALYSIS

The intergenerational analysis focuses on individuals between the ages of 12 and 17 in 1968, who were living with at least one parent or grandparent at that time. There were 1698 such individuals in the PSID (column 1 of Table C.1). Since we were interested in the economic status of the young adult's own family as an attainment measure, we focused our analysis on the young adults who had splitoff to form their own households by 1981. There were 1480 such individuals in the PSID (column 2 of Table C.1). Not all of these individuals could be used for the analysis because some had missing information on key parental and attitude measures. The sample used in most of our analyses were the 1255 splitoffs with non-missing data for the key variables (column 3 of Table C.1). As can be seen from Table C.1, this sample includes a large number of young adults from poor parental families, defining poor as having average family income/needs less than 1.5. This sample also includes sizable subsamples by race and sex. This is important since the analysis is performed separately for these subgroups.

Thh sample sizes for two other samples used in the analysis are listed in the last two columns of Table C.1. The first of these is the sample used for testing for possible selection bias due to the exclusion of non-splitoffs from the focal sample. The second is the sample used for testing for differences in effects of parental attitudes for the highest achievers from each family.

The remainder of this Appendix concentrates on the focal 1255 sample, subdivided into 319 white men, 258 black men, 378 white women, and 300 black women. Tables C.2-C.4 present descriptive statistics for the parental background, parental attitudes, and outcome measures for each of these subgroups.

Distributions of Parental Attitudes Across Subgroups

There are some differences in the means of the parental attitudinal indices across race and sex subgroups (Table C.2). Differences between the races are

Table C.1

PSID Individuals Who Were Young Adults Aged 12 to 17 in 1968 and Lived With at Least One Parent or Grandparent

			Non-Missing Data		
	Full Sample	Split by 1981	Split by 1981	Full Sample	Highest Income/ Need Child
All Young Adults	1698	1480	1255	1428	812
White men	461	411	319	361	208
Black men	358	285	258	314	162
White women	484	454	378	403	264
Black women	395	330	300	350	178
Young Adults From Poor Families	712	613	543	*	*
White men	67	62	*	*	*
Black men	266	215	*	*	*
White women	90	86	*	*	*
Black women	289	250	*	*	*
Young Adults From Nonpoor Families	986	867	712	*	*
White men	394	349	*	*	*
Black men	92	70	*	*	*
White women	394	368	*	*	*
Black women	106	80	*	*	*

*These case counts were not ascertained.

more dramatic than the gender differences. The parents of young white males and females are much more efficacious than the parents of young black males and females. Average personal efficacy for the parents of white young adults is .65, compared to .46 for young black adults. The parents of young white adults are more likely to prefer challenge to affiliation, and to a lesser extent, prefer challenge to power than the parents of young black adults. The parents of young white adults have an average challenge versus affiliation score equal to .65 whereas the comparable figure for blacks is .54. The parents of white males, black males, white females, and black females are similar in their orientation toward the future, preference for their children to be self-directed, and their fear of failure.

Distributions of Parental Background Characteristics Across Subgroups

There are substantial differences between the parental background of young white adults and the background of young black adults (Table C.3). Average amounts of educational attainment of the parents are much higher for both groups of whites, as are the test scores. The parents of young white adults have average income to needs ratios over two times larger than those for parents of young blacks. The parents of young black adults are three times more likely to be residing in the South (64 versus 21 percent). Young black adults grow up in households that average a larger number of siblings than their white counterparts, and they are much more likely to have grown up in households in which the father was absent (42 versus 16 percent). It is not surprising that they also are more likely to have grown up in welfare dependent households. Nearly two-thirds of young blacks were in parental homes that received welfare at some time, and one-sixth of young black adults came from families which were dependent upon welfare income for at least 50 percent of their total family income. Only one-fifth of young white adults grew up in households which received welfare at some time, and less than 1 percent came from families dependent upon welfare for at least 50 percent of their total income.

Table C.2

Average Parental Attitudes for Race/Sex Subgroups
(Young Adults Who Formed Own Household by 1981)

Parental Attitudes	White Males	Black Males	White Females	Black Females
Efficacy	0.64 (0.32)	0.48 (0.31)	0.65 (0.32)	0.44 (0.32)
Future Orientation	0.43 (0.27)	0.44 (0.28)	0.45 (0.28)	0.45 (0.28)
Achievement Motivation				
Child Self-directed	0.38 (0.38)	0.35 (0.34)	0.38 (0.38)	0.33 (0.34)
Challenge vs. Affiliation	0.67 (0.35)	0.55 (0.36)	0.64 (0.34)	0.54 (0.36)
Challenge vs. Power	0.82 (0.28)	0.77 (0.28)	0.84 (0.27)	0.78 (0.32)
Power vs. Affiliation	0.67 (0.33)	0.64 (0.30)	0.65 (0.35)	0.70 (0.32)
Fear of Failure	0.38 (0.25)	0.39 (0.31)	0.39 (0.26)	0.40 (0.30)
Number of Observations	319	258	378	300

Table C.3

Mean Demographic and Parental Characteristics of Young Adults (Standard Deviations in Parentheses)
(Young Adults Who Formed Own Household by 1981)

Demographic and Parental Characteristics	White Males	Black Males	White Females	Black Females
Father's education	10.99 (3.62)	7.27 (3.54)	11.01 (3.62)	7.38 (3.81)
Mother's education	11.61 (2.58)	8.72 (2.92)	11.11 (3.14)	8.39 (2.86)
Number of Siblings	3.46 (2.19)	5.32 (2.54)	3.40 (2.28)	5.35 (2.52)
Mother Only Home	0.13 (0.31)	0.45 (0.49)	0.19 (0.39)	0.39 (0.49)
Parental Family Income/Needs	3.23 (1.75)	1.39 (0.91)	3.35 (2.42)	1.27 (0.93)
Whether Catholic	0.30 (0.46)	0.05 (0.21)	0.31 (0.46)	0.02 (0.15)
Whether South in 1968	0.19 (0.40)	0.63 (0.49)	0.22 (0.41)	0.65 (0.48)
City Size in 1968	229.23 (203.17)	262.51 (211.78)	234.79 (202.43)	221.36 (199.64)
Parent's Test Score	9.80 (1.81)	7.54 (2.53)	9.79 (2.08)	7.26 (2.53)
Whether didn't receive welfare	0.79 (0.41)	0.33 (0.47)	0.80 (0.41)	0.35 (0.48)
Whether 0.01-0.25 Welfare Dependent	0.16 (0.37)	0.39 (0.49)	0.16 (0.37)	0.36 (0.48)
Whether 0.26-0.50 Welfare Dependent	0.02 (0.15)	0.13 (0.34)	0.02 (0.13)	0.11 (0.31)
Whether 0.51-0.75 Welfare Dependent	0.02 (0.12)	0.05 (0.22)	0.01 (0.08)	0.09 (0.29)
Whether 0.76-1.00 Welfare Dependent	0.01 (0.08)	0.10 (0.29)	0.01 (0.12)	0.09 (0.29)
Number of Observations	319	258	378	300

Welfare dependency is the fraction of the parent's permanent income that was in the form of welfare.

Distributions of Young Adult Outcomes Across Subgroups

Table C.4 presents the average outcome levels for the four race/sex subgroups. We observe the well-known differences across the races and sexes concerning labor force participation, annual work hours, and labor market earnings. For example, young white males work more hours than young black males, while young males work considerably more hours than young females. This pattern holds true for annual labor force hours as well. Young white males had average earnings equal to $14,000; this figure was $4,000 more than the earnings of young black males, and is over two times larger than the labor earnings of young females. Young white adults completed more years of education than young blacks, but the difference amounts to less than a year. Average family income to needs ratios are higher for both groups of whites: young white males had an income/needs equal to 3.33, compared to 2.43 for black males. The corresponding ratios for white females and black females are 3.23 and 2.33 respectively. Major differences appear for welfare receipt and dependency. Young black females are three times more likely to receive welfare than young white males (59 versus 20 percent), and are over two times more likely to receive welfare than either white females (25 percent) or black males (27 percent). Young adult black females annually receive between 590 and 688 dollars more in welfare income, and are dependent upon welfare income for between 10 and 11 percent more of their total income than the other race/sex groups. Young black males were least likely, and young white females were most likely to be married before age 20. Only 5 percent of young black males were married before age 20, whereas 32 percent of young white females were married before age 20. Young black females were most likely to have a child before age 20 (regardless of marital status). Eleven percent of young black females had a child before age 20, compared to 7 percent for young white females.

Comparison of Early Splitoffs with All Splitoffs

The subsample of early splitoffs registered somewhat lower mean levels on all the parental attitude measures .(.05-.07 percentage points less), their

Table C.4

Mean Young Adult Outcomes
(Young Adults Who Formed Own Household by 1981)
(Standard Deviations in Parentheses)

Young Adult Outcomes	White Males	Black Males	White Females	Black Females
Family Income/Needs	3.33 (1.24)	2.43 (1.19)	3.23 (1.20)	2.33 (1.20)
Family Income	19,213 (7,542)	13,732 (7,020)	18,850 (7,564)	13,543 (7,854)
Labor Income	14,500 (6,911)	10,732 (5,784)	6,500 (5,035)	5,570 (4,004)
Annual Work Hours	1,956 (44)	1,746 (585)	1,140 (648)	1,125 (620)
Annual Labor Force Hours	2,076 (404)	1,987 (458)	1,232 (647)	1,272 (583)
Ever Received Welfare	0.20 (0.40)	0.27 (0.44)	0.25 (0.43)	0.59 (0.49)
Welfare Income	100 (498)	150 (476)	178 (660)	768 (1,364)
Welfare Income/Total Income	0.01 (0.07)	0.02 (0.08)	0.02 (0.08)	0.12 (0.23)
Education	13.14 (2.14)	12.28 (1.82)	12.96 (2.11)	12.48 (1.69)
Married before age 20	0.12 (0.33)	0.05 (0.21)	0.32 (0.47)	0.21 (0.41)
Had child before Age 20	0.01 (0.11)	0.03 (0.17)	0.07 (0.26)	0.11 (0.31)
Number of Observations	319	258	378	300

parents had slightly lower income to needs ratios and were somewhat more likely to receive welfare, and the young adults themselves generally had somewhat less favorable economic outcomes relative to the full sample of splitoffs. The most dramatic differences were that young adults who split between 1969 and 1972 were twice as likely to be married before age 20 (53 percent versus 22 percent), and when they left home, they were on average over 2 years younger (18.7 years versus 21.3 years) than their full sample counterparts.

APPENDIX D

DETAILED TABLES FOR INTERGENERATIONAL ANALYSIS

Table D.1

Percentage Distribution of Young Adults by Parental Family Income/Needs Quintile and Own Family Income/Needs Quintile

Young Adult's Family Income/Needs Quintile	Parental Family Income/Needs Quintile					
	Lowest	Fourth	Third	Second	Highest	All
Lowest	8.7 (43.3)	4.3 (23.2)	2.5 (11.1)	2.1 (10.7)	1.8 (9.2)	19.3
Fourth	5.4 (26.9)	4.5 (24.1)	5.2 (23.3)	3.4 (17.2)	2.5 (13.2)	21.0
Third	3.6 (18.2)	3.5 (19.0)	5.1 (22.7)	4.3 (21.7)	3.6 (18.9)	20.2
Second	1.9 (9.4)	3.6 (19.3)	5.8 (26.1)	5.1 (25.5)	4.4 (23.1)	20.8
Highest	0.4 (2.2)	2.7 (14.3)	3.8 (16.8)	5.0 (24.9)	6.8 (35.6)	18.6
All	20.0	18.6	22.4	20.0	19.1	100.0

NOTE: Numbers in parentheses represent percent of the column group. Number of observations=1480.

The quintiles represent the following ranges of income/needs for parental family income/needs quintile: lowest=0-1.49, fourth=1.5-2.26, third=2.27-3.16, second=3.17-4.35, highest=4.36 or more

The quintiles represent the following ranges of income/needs for own family income/needs quintile: lowest=0-1.99, fourth=2.0-2.80, third=2.82-3.54, second=3.55-4.39, highest=4.40 or more.

Table D.2

Percentage Distribution of Young Adults by Parental Family Income/Needs and Own Family Income/Needs

Young Adult's Family Income/Needs	Parental Family Income/Needs Less than 1.5	1.5-1.9	2.0-2.9	3.0-4.9	5.0 or More	All
Less than 1.5	4.4 (21.8)	1.1 (9.9)	1.1 (4.3)	1.5 (4.8)	0.5 (4.2)	8.7
1.5-1.9	4.3 (21.3)	1.5 (13.5)	2.2 (8.7)	2.5 (9.0)	0.6 (5.0)	11.0
2.0-2.9	6.6 (32.7)	3.8 (34.2)	7.4 (29.2)	6.1 (19.4)	1.8 (15.1)	25.6
3.0-4.9	4.7 (23.3)	4.1 (36.9)	12.3 (48.6)	16.3 (51.9)	6.7 (56.3)	44.1
5.0 or more	0.4 (2.0)	0.6 (5.4)	2.3 (9.0)	4.9 (15.6)	2.3 (19.3)	10.6
All	20.2	11.1	25.3	31.4	11.9	100.0

NOTE: Numbers in Parentheses represent percent of the column group. Number of observations=1480.

Table D.3

Percentage Distribution of Young Adults by Parental Family Income and Own Family Income, Using 1.5 Times the 1980 Poverty Income Cutoff for a Family of Two as the Boundary for the Lowest Income Category

	Parental Family Income					
Young Adult's Family Income	Less than $8,000	$8,000-$11,999	$12,000-$17,999	$18,000-$24,999	$25,000- or more	All
Less than $8,000	1.1 (24.0)	1.5 (24.5)	1.4 (10.0)	1.9 (10.3)	3.6 (6.4)	9.5
$8,000-$11,999	1.1 (24.8)	1.3 (21.0)	2.3 (16.1)	2.9 (15.8)	5.2 (9.2)	12.8
$12,000-$17,999	0.9 (19.5)	1.8 (29.7)	4.6 (32.5)	5.8 (31.5)	14.0 (24.8)	27.2
$18,000-$24,999	1.1 (24.5)	1.3 (21.9)	3.6 (25.6)	5.6 (30.3)	17.9 (31.7)	29.7
$25,000 or more	0.3 (7.2)	0.8 (2.8)	2.2 (15.8)	2.2 (12.1)	15.8 (28.0)	20.8
All	4.6	6.2	14.2	18.5	56.6	100.0

NOTE: Numbers in parentheses represent percent of the column group. Number of observations=1480.

Table D.4

Percentage Distribution of Young Adults by Parental Family Income and Own Family Income, Using 1.5 Times the 1980 Poverty Income Cutoff for a Family of Four as the Boundary for the Lowest Income Category

	Parental Family Income					
Young Adult's Family Income	Less than $12,575	$12,575-$17,999	$18,000-$24,999	$25,000-$34,999	$35,000-or more	All
Less than $12,575	5.8 (49.0)	3.4 (26.3)	5.5 (29.5)	5.7 (20.5)	4.6 (16.1)	25.1
$12,575-$17,999	2.9 (24.2)	4.0 (30.3)	5.2 (28.1)	6.7 (24.1)	5.7 (20.1)	24.5
$18,000-$24,999	2.6 (22.0)	3.5 (26.7)	5.6 (30.3)	8.8 (31.4)	9.2 (32.0)	29.7
$25,000-$34,999	0.6 (4.8)	2.2 (16.6)	2.2 (12.1)	6.7 (24.0)	9.1 (31.8)	20.8
$35,000 or more	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0
All	11.8	13.1	18.5	27.9	28.7	100.0

NOTE: Numbers in parentheses represent percent of the column group.
Number of observations=1480.

Table D.5

Percentage Distribution of Young Adults by Parental Welfare Income/Total Income and Own Welfare Income/Total Income*
(Females Who Formed Own Household by 1981)

Young Adult's Welfare Income/Total Income	Parental Welfare Income/Total Income					
	0	0.01-0.25	0.26-0.50	0.51-0.75	0.75-1.00	All
0	59.1 (53.7) [75.9]	9.1 (12.4) [17.5]	1.0 (0.7) [2.6]	0.6 (0.4) [1.6]	1.0 (0.7) [2.4]	70.8
0.01-0.25	15.4 (19.1)	7.2 (4.4) [17.5]	1.0 (0.3)	0.9 (0.4)	0.7 (0.6)	25.2
0.26-0.50	1.1 (1.6)	0.4 (0.4)	0.3 (0.1) [2.6]	0.0 (0.0)	0.2 (0.1)	2.1
0.51-0.75	0.0 (0.7)	0.2 (0.2)	0.3 (0.0)	0.0 (0.0) [1.6]	0.3 (0.0)	0.9
0.76-1.00	0.1 (0.8)	0.6 (0.2)	0.1 (0.0)	0.0 (0.0)	0.2 (0.0) [2.4]	1.1
All	75.9	17.5	2.6	1.6	2.4	100.0

*The number in parentheses represents what the percentage for that cell would be if young adults' own welfare income/total income were independent of parental welfare income/total income. The number in brackets represents what the percentage for the cell would be if young adults' own welfare income/total income were completely dependent on parental welfare income/total income.

Table D.6

Mean Parental Attitudes for Various Subgroups of Young Adults
(Standard Deviations in Parentheses)

	All Young Adults*			Young Adults Who formed Own Household by 1981			Young Adults who formed own household by 1972
Parental Attitudes	From Poor Families	From Non-Poor Families	ALL	From Poor Families	From Non-Poor Families	ALL	
Efficacy	0.43 (0.31)	0.66 (0.31)	0.61 (0.32)	0.43 (0.32)	0.67 (0.31)	0.62 (0.33)	0.55 (0.33)
Future Orientation	0.38 (0.28)	0.46 (0.28)	0.44 (0.28)	0.38 (0.28)	0.46 (0.45)	0.44 (0.28)	0.37 (0.25)
Achievement Motivation							
Child self-directed	0.25 (0.33)	0.40 (0.38)	0.37 (0.37)	0.25 (0.33)	0.41 (0.38)	0.37 (0.37)	0.30 (0.35)
Challenge vs. Affiliation	0.48 (0.34)	0.68 (0.34)	0.64 (0.35)	0.48 (0.34)	0.68 (0.33)	0.64 (0.35)	0.59 (0.33)
Challenge vs. Power	0.80 (0.29)	0.83 (0.28)	0.82 (0.28)	0.79 (0.30)	0.83 (0.28)	0.83 (0.28)	0.85 (0.27)
Power vs. Affiliation	0.58 (0.34)	0.68 (0.34)	0.66 (0.34)	0.58 (0.34)	0.68 (0.34)	0.66 (0.34)	0.58 (0.35)
Fear of Failure	0.43 (0.30)	0.38 (0.25)	0.39 (0.26)	0.42 (0.29)	0.38 (0.25)	0.39 (0.26)	0.39 (0.26)
Number of Observations	625	810	1435	543	712	1,255	261

*Includes young adults who formed their own household by 1981 (i.e., splitoffs), and young adults who never left their parental home by 1981 (i.e. non-splitoffs).

Table D.7

Zero Order Correlations Between Parental and Young Adult Attitudes
(Young Adults 25-30 in 1981 who formed own households 1969-1972)

	Young Adults' Attitudes						
Parental Attitudes	Efficacy	Future Orientation	Child Self-Directed	Challenge vs. Affiliation	Challenge vs. Power	Power vs. Affiliation	Fear Failure
Efficacy	0.1155	0.1176	0.1056	0.1359	0.0884	0.1169	-0.0958
Future Orientation	0.0608	0.2495	0.0863	0.1191	0.0565	0.1190	0.0250
Child Self Directed	0.0037	0.0872	0.0986	0.0950	0.0397	0.0715	-0.0499
Challenge vs. Affiliation	0.0818	0.1434	0.1543	0.2844	0.0434	-0.0427	-0.0863
Challenve vs. Power	-0.0428	-0.0877	0.0304	0.1694	0.1327	-0.0464	-0.1277
Power vs. Affiliation	0.255	0.0795	0.0900	0.0074	-0.1236	-0.0889	-0.0709
Fear of Failure	-0.1365	-0.0466	0.0692	0.0044	-0.0969	-0.0092	0.0230
Number of Observations	261						

Table D.8

Zero-order Correlations between Parent's Attitudes and Outcome Measures of Young Adults

Parent's Attitude Measure	Young Adult's Education	Young Adult's Family Income	Young Adult's Work Hours	Young Adult's Labor Force Hours	Young Adult's Welfare Income/ Total Income	Married Before Age 20	Had Child Before Age 20
Efficacy							
White Males	.2351	-.0175	.0150	-.0356	-.0635	-.0263	-.0252
Black Males	.1377	.0823	.1185	.0731	.0227	-.0365	.1994
White Females	.2878	.1616	.2185	.2040	-.2604	-.1448	-.0588
Black Females	.0620	-.0738	.2078	.1863	-.0741	-.0403	-.0175
Future Orientation							
White Males	.1183	.1101	.0689	.0213	-.1395	-.0289	.0190
Black Males	.2154	.0482	.1342	.0355	.1060	-.0012	-.1095
White Females	.2524	.0285	.1112	.1045	-.1334	-.1019	-.0391
Black Females	.0463	-.0512	.0362	-.0151	-.0488	-.0608	-.0669
Achievement Motivation							
Child Self-directed							
White Males	.2674	.0308	-.0709	-.1318	-.0003	-.1088	.0025
Black Males	.1081	.0497	.1995	.1687	-.0281	-.0589	.1057
White Females	.3522	.0458	.1562	.1543	-.0895	-.1425	-.0553
Black Females	.1505	-.0836	.0889	.0908	.0669	-.1848	.1060
Challenge vs. Affiliation							
White Males	.1921	-.0183	.0991	-.1589	-.0425	-.0908	.0324
Black Males	.1898	.1349	.1877	.2126	-.0518	-.0611	-.0385
White Females	.3122	.1181	.2561	.2587	-.1638	-.1557	-.0618
Black Females	.3001	-.0068	-.0614	-.0745	.0753	-.3549	.0586
Challenge vs. Power							
White Males	-.0227	-.0382	-.0037	-.0488	.0691	.0907	.0296
Black Males	.0826	-.0386	.0307	-.0727	.0122	.0955	-.1209
White Females	.0409	.0029	.0268	.0389	.0007	-.0110	-.0290
Black Females	.0642	.1960	.1257	.1170	-.0346	-.2290	.0204
Power vs. Affiliation							
White Males	.1340	.0292	.2166	-.0079	-.1924	-.1191	.0184
Black Males	.0965	.0839	.2328	.2194	-.0525	-.0749	-.0525
White Females	.2976	.0597	.1804	.1703	-.1459	-.0806	-.1468
Black Females	.0518	-.3459	-.1420	-.1225	.0335	.0568	-.0396
Fear Failure							
White Males	-.1480	-.1266	.0830	.1139	-.0512	.1136	-.1104
Black Males	-.0158	-.0994	-.0745	-.0016	-.1012	.0398	.0069
White Females	-.0709	.0174	-.0673	-.0638	.0818	-.0553	-.1003
Black Females	-.2007	-.1172	-.1385	-.1205	.1846	.1221	.0163

Table D.9

Regressions of Young Adult's Income/Needs on Parental Attitudes Evaluated at Parental Income/Needs Equal to 1.0
(Young Adults Who Formed Own Households by 1981)

Parental Attitudes	Young Adults Income/Needs			
	White Males	Black Males	White Females	Black Females
Efficacy	-.221 (.378)	.126 (.277)	.613* (.294)	.141 (.239)
Future Orientation	.869* (.436)	-.302 (.299)	-.177 (.310)	-.283 (.259)
Achievement Motivation				
Child Self-Directed	-.013 (.308)	-.165 (.256)	.091 (.261)	.396+ (.230)
Challenge vs. Affiliation	-.612+ (.331)	.888** (.271)	.661* (.278)	.154 (.211)
Challenge vs. Power	-.489 (.433)	-.524+ (.301)	.231 (.299)	.250 (.208)
Power vs. Affiliation	.367 (.359)	.448 (.279)	.268 (.268)	-1.23** (.207)
Fear of Failure	-.703 (.441)	-.184* (.281)	.871** (.329)	-.739** (.225)
Interactions with Parental Income/Needs				
Efficacy x Parental Income/Needs	NS	(-)+	NS	NS
Future Orientation x Parental Income/Needs	NS	NS	(+)+	(+)**
Child Self-Directed x Parental Income/Needs	NS	NS	NS	(-)**
Challenge vs. Affiliation x Parental Income/Needs	(+)*	NS	(-)+	NS
Challenge vs. Power x Parental Income/Needs	NS	NS	NS	(+)*
Power vs. Affiliation x Parental Income/Needs	NS	NS	NS	NS
Fear of Failure x Parental Income/Needs	NS	NS	(-)*	NS

Other variables used in the regression are: Father's education, Mother's education, Parents' Test Score, Number of Siblings, Whether South 1968, City Size 1968, Parental Income/Needs, Mother Only Home, Whether Catholic, and Age of Young Adult in 1981.

+ indicates statistically significant at 0.10 (two-tailed test).
* indicates statistically significant at 0.05 (two-tailed test).
** indicates statistically significant at 0.01 (two-tailed test).

For the interactions, (+) indicates positive sign for coefficient.
(-) indicates negative sign for coefficient.
NS indicates coefficient is not statistically significant at conventional levels.

Table D.10

Regressions of Young Adult's Labor Earnings and Whether Received Welfare on Parental Attitudes Evaluated at Parental Income/Needs Equal to 1.0
(Young Adults Who Formed Own Households by 1981)

	Young Adults Labor Earnings				Whether Young Adult Received Welfare			
Parental Attitudes	White Males	Black Males	White Females	Black Females	White Males	Black Males	White Females	Black Females
Efficacy	-553 (2220)	-307 (1305)	2844* (1219)	1196 (881)	.024 (.129)	.082 (.102)	-.310** (.114)	-.034 (.109)
Future Orientation	5017* (2561)	19 (1411)	-455 (1287)	-2979** (955)	-.090 (.149)	.122 (.111)	-.149 (.120)	.090 (.118)
Achievement Motivation								
Child Self-Directed	361 (1810)	618 (1206)	1510 (1084)	1581+ (850)	-.144 (.105)	-.213* (.094)	.141 (.101)	.088 (.104)
Challenge vs. Affiliation	-2501 (1940)	3723** (1278)	2713* (1149)	-152 (778)	.224* (.113)	-.212* (.099)	-.156 (.107)	-.077 (.095)
Challenge vs. Power	-1656 (2542)	-1294 (1422)	-58 (1243)	666 (766)	.108 (.148)	.045 (.111)	.046 (.116)	-.193* (.094)
Power vs. Affiliation	1361 (2108)	3154* (1318)	1181 (4112)	-2624** (764)	-.137 (.123)	.147 (.103)	-.050 (.104)	.352** (.094)
Fear of Failure	725 (2589)	-922 (1328)	3029* (1364)	-1145 (830)	.481** (.151)	-.143 (.103)	-.153 (.128)	.078 (.102)
Interactions with Parental Income/Needs								
Efficacy x Parental Income/Needs	NS	NS	NS	NS	NS	NS	NS	NS
Future Orientation x Parental Income/Needs	NS	NS	NS	(+)**	(+)+	NS	NS	(-)*
Child Self-Directed x Parental Income/Needs	NS	NS	NS	NS	(+)+	NS	NS	(+)**
Challenge vs. Affiliation x Parental Income/Needs	NS	NS	NS	NS	(-)+	NS	NS	(-)*
Challenge vs. Power x Parental Income/Needs	NS	NS	NS	NS	NS	NS	NS	NS
Power vs. Affiliation x Parental Income/Needs	NS	NS	NS	NS	NS	NS	NS	NS
Fear of Failure x Parental Income/Needs	NS	NS	(-)+	NS	(-)**	(-)+	NS	(-)*

Other variables used on the regression are: Father's education, Mother's education, Parents' Test Score, Number of Siblings, Whether South 1968, City Size 1968, Parental Income/Needs, Mother Only Home, Whether Catholic, and Age of Young Adult in 1981.

+ indicates statistically significant at 0.10 (two-tailed test).
* indicates statistically significant at 0.05 (two-tailed test).
** indicates statistically significant at 0.01 (two-tailed test).

For the interactions, (+) indicates positive sign for coefficient.
(-) indicates negative sign for coefficient.
NS indicates coefficient is not statistically significant at conventional levels.

Table D.11

Regressions of Young Adult's Education and Family Income on Parental Attitudes Evaluated at Parental Income/Needs Equal to 1.0
(Young Adults Who Formed Own Households by 1981)

Parental Attitudes	Young Adult's Education				Young Adult's Family Income			
	White Males	Black Males	White Females	Black Females	White Males	Black Males	White Females	Black Females
Efficacy	.026	.117	1.39**	.220	-1775	756	2823	859
	(.613)	(.406)	(.454)	(.379)	(2355)	(1681)	(1958)	(1478)
Future Orientation	.244	.391	.394	-.228	4188	-1393	-1592	-978
	(.708)	(.438)	(.479)	(.411)	(2716)	(1817)	(2067)	(1602)
Achievement Motivation								
Child Self-Directed	1.078*	.872*	.511	.511	-392	-868	18	1778
	(.500)	(.375)	(.403)	(.365)	(1920)	(1553)	(1741)	(1423)
Challenge vs. Affiliation	.582	.720+	.671	1.19**	-3146	3595*	3658*	-115
	(.536)	(.397)	(.428)	(.334)	(2058)	(1645)	(1845)	(1305)
Challenge vs. Power	-.850	.378	.100	.065	-1406	-3632*	1462	2181+
	(.703)	(.442)	(.463)	(.329)	(2697)	(1832)	(1996)	(1285)
Power vs. Affiliation	-.647	-.043	.343	-.132	1724	3030+	1320	-8197**
	(.583)	(.409)	(.414)	(.329)	(2235)	(1698)	(1786)	(1282)
Fear of Failure	-.043	.160	.241	-.876*	-4350	-2299	4580*	-5341**
	(.715)	(.413)	(.508)	(.357)	(2746)	(1709)	(2192)	(1392)
Interactions with Parental Income/Needs								
Efficacy x Parental Income/Needs	NS	NS	(-)**	NS	NS	(-)*	NS	NS
Future Orientation x Parental Income/Needs	NS	NS	NS	(+)**	NS	NS	NS	(+)**
Child Self-Directed x Parental Income/Needs	NS	(-)*	NS	NS	NS	NS	NS	(-)**
Challenge vs. Affiliation x Parental Income/Needs	NS	NS	NS	NS	NS	NS	(-)+	(+)+
Challenge vs. Power x Parental Income/Needs	(+)+	NS	NS	NS	NS	NS	NS	(+)+
Power vs. Affiliation x Parental Income/Needs	NS	NS	NS	NS	(-)+	NS	NS	NS
Fear of Failure x Parental Income/Needs	NS	NS	NS	NS	NS	NS	(-)+	NS

Other variables used on the regression are: Father's education, Mother's education, Parents' Test Score, Number of Siblings, Whether South 1968, City Size 1968, Parental Income/Needs, Mother Only Home, Whether Catholic, and Age of Young Adult in 1981.

+ indicates statistically significant at 0.10 (two-tailed test).
* indicates statistically significant at 0.05 (two-tailed test).
** indicates statistically significant at 0.01 (two-tailed test).

For the interactions, (+) indicates positive sign for coefficient.
(-) indicates negative sign for coefficient.
NS indicates coefficient is not statistically significant at conventional levels.

Table D.12

Regressions of Young Adult's Work Hours and Labor Force Hours on Parental Attitudes Evaluated at Parental Income/Needs Equal to 1.0
(Young Adults Who Formed Own Households by 1981)

	Young Adult's Annual Work Hours				Young Adult's Annual Labor Force Hours			
Parental Attitudes	White Males	Black Males	White Females	Black Females	White Males	Black Males	White Females	Black Females
Efficacy	-32	25	347*	254+	-116	-30	309+	152
	(147)	(129)	(169)	(142)	(131)	(99)	(169)	(136)
Future Orientation	513**	22	97	-348*	487**	-66	90	-370*
	(170)	(139)	(178)	(154)	(151)	(107)	(179)	(148)
Achievement Motivation								
Child Self-Directed	-82	184	13	355**	-126	115	11	276*
	(119)	(119)	(149)	(137)	(107)	(91)	(151)	(131)
Challenge vs. Affiliation	-289*	441**	432**	-199	-192+	262**	450**	-237*
	(128)	(126)	(158)	(125)	(114)	(97)	(160)	(120)
Challenge vs. Power	-117	-69	70	163	31	-240*	42	169
	(168)	(140)	(171)	(123)	(150)	(108)	(173)	(119)
Power vs. Affiliation	225*	366**	170	-306*	197	320**	147	-160
	(139)	(130)	(153)	(123)	(124)	(100)	(154)	(118)
Fear of Failure	209	-172	233	-89	275+	-129	188	-38
	(171)	(131)	(189)	(134)	(152)	(101)	(190)	(128)
Interactions with Parental Income/Needs								
Efficacy × Parental Income/Needs	NS	NS	NS	NS	NS	NS	NS	NS
Future Orientation × Parental Income/Needs	(-)**	NS	NS	NS	(-)**	(-)**	NS	NS
Child Self-Directed × Parental Income/Needs	NS	NS	NS	NS	NS	NS	NS	NS
Challenge vs. Affiliation × Parental Income/Needs	NS	(+)*	NS	NS	NS	(+)*	NS	NS
Challenge vs. Power × Parental Income/Needs	NS	(+)*	NS	NS	NS	(+)*	NS	NS
Power vs. Affiliation × Parental Income/Needs	NS	NS	NS	NS	(-)+	NS	NS	NS
Fear of Failure × Parental Income/Needs	NS	(+)*	NS	NS	NS	(+)*	NS	NS

Other variables used on the regression are: Father's education, Mother's education, Parents' Test Score, Number of Siblings, Whether South 1968, City Size 1968, Parental Income/Needs, Mother Only Home, Whether Catholic, and Age of Young Adult in 1981.

+ indicates statistically significant at 0.10 (two-tailed test).
* indicates statistically significant at 0.05 (two-tailed test).
** indicates statistically significant at 0.01 (two-tailed test).

For the interactions, (+) indicates positive sign for coefficient.
(-) indicates negative sign for coefficient.
NS indicates coefficient is not statistically significant at conventional levels.

Table D.13

Regressions of Young Adult's Income to Needs on Parental Attitudes
(Young Adults Who Formed Own Househol by 1981)

Predictor Variables	Young Adult's Income/Needs			
	Males		Females	
	White	Black	White	Black
Efficacy	-.129 (.515)	.736 (.462)	.655+ (.386)	.381 (.476)
Future Orientation	1.059+ (.582)	-.387 (.576)	-.369 (.400)	-1.477* (.470)
Child Self-Directed	.031 (.397)	-.316 (.513)	.191 (.334)	1.358** (.454)
Challenge vs. Affiliation	-.869* (.440)	1.397** (.505)	.821* (.347)	.091 (.446)
Challenge vs. Power	-.630 (.567)	-.739 (.558)	.349 (.370)	-.381 (.415)
Power vs. Affiliation	.555 (.466)	.865+ (.519)	.316 (.354)	-1.364** (.395)
Fear of Failure	-.610 (.588)	-.636 (.500)	1.117** (.412)	-1.290** (.425)
Efficacy X Parental Income/Needs	-.092 (.158)	-.611+ (.323)	-.041 (.116)	-.240 (.361)
Future Orientation X Parental Income/Needs	-.191 (.171)	.085 (.431)	.192+ (.114)	1.194** (.348)
Child Self-Directed X Income/Needs	-.044 (.106)	.151 (.384)	-.099 (.089)	-.961** (.338)
Challenge vs. Affiliation X Parental Income/Needs	.258* (.129)	-.509 (.342)	-.160+ (.093)	.064 (.339)
Challenge vs. Power X Parental Income/Needs	.141 (.152)	.215 (.396)	- 117 (.093)	.631+ (.327)
Power vs. Affiliation X Parental Income/Needs	-.188 (.127)	-.417 (.362)	-.048 (.104)	.134 (.307)
Fear of Failure X Parental Income/Needs	-.092 (.174)	.452 (.348)	-.246* (.109)	.552 (.353)
Background Controls				
Father's Education	-.021 (.025)	-.0005 (.025)	-.050* (.023)	.067** (.020
Mother's Education	.052 (.034)	-.059* (.028)	.042+ (.025)	-.073** (.026)

	Young Adult's Income/Needs			
	Males		Females	
Predictor Variables	White	Black	White	Black
Parent's Test Score	-.052	-.025	-.008	-.045
	(.036)	(.038)	(.034)	(.029)
Number of Siblings	.066	.016	.018	-.091**
	(.216)	(.038)	(.027)	(.030)
Whether South 1968	-.182	-.172	-.076	-.131
	(.178)	(.218)	(.145)	(.201)
City Size 1968	.0005	-.0003	.001**	-.363
	(.0003)	(.0005)	(.0003)	(.483)
Parental Income/Needs	.213	1.035+	.474**	-.873+
	(.213)	(.561)	(.134)	(.466)
Mother Only Home	.066	-.151	-.138	.172
	(.217)	(.183)	(.153)	(.158)
Whether Catholic	.506**	-.097	.231+	.778+
	(.157)	(.385)	(.137)	(.403)
Age of Young Adult 1981	.129**	.133**	.086*	.115**
	(.038)	(.048)	(.035)	(.038)
Constant	-.178	-1.72	-1.549	1.84
R^2	.243	.256	.258	.395
R^2 Adjusted	.182	.179	.207	.342
Number of Observations	319	258	378	300

+ significant at .10 level, two-tailed test
* significant at .05 level, two-tailed test
** significant at .01 level, two-tailed test

Standard errors in parentheses

Table D.14

Regressions of Young Adult's Annual Earnings and Whether Young Adult Received Welfare on Parental Attitudes
(Young Adults Who Formed Own Household by 1981)

Predictor Variables	Young Adult's Annual Earnings				Whether Young Adult Received Welfare			
	Males		Females		Males		Females	
	White	Black	White	Black	White	Black	White	Black
Efficacy	-617 (3019)	1717 (2184)	3099+ (1602)	2213 (1754)	.075 (.176)	-.050 (.171)	-.366* (.150)	-.155 (.216)
Future Orientation	6595+ (3417)	-377 (2719)	-712 (1657)	-5838** (1730)	-.188 (.199)	.067 (.213)	-.163 (.155)	.422* (.213)
Child Self-Directed	1073 (2331)	2364 (2419)	1663 (1384)	3376* (1674)	-.203 (.136)	-.360+ (.189)	.171 (.130)	-.345+ (.206)
Challenge vs. Affiliation	-3669 (2584)	5587* (2385)	2589+ (1440)	1769 (1643)	.310* (.151)	-.328+ (.187)	-.184 (.134)	.238 (.202)
Challenge vs. Power	-1071 (3328)	-2077 (2635)	376 (1532)	-327 (1530)	.145 (.194)	-.039 (.206)	.035 (.143)	-.163 (.188)
Power vs. Affiliation	2335 (2739)	5783* (2451)	1210 (1469)	-4084** (1455)	-.180 (.160)	.207 (.192)	-.086 (.137)	.239 (.179)
Fear of Failure	2163 (3453)	-2536 (2360)	3872* (1706)	-1229 (1565)	.667** (.202)	.085 (.185)	-.157 (.160)	.412* (.193)
Efficacy X Parental Income/Needs	95 (927)	-2034 (1525)	-254 (481)	-1017 (1330:	-.051 (.054)	.132 (.119)	.056 (.045)	.121 (.164)
Future Orientation X Parental Income/Needs	-1579 (1004)	396 (2035)	257 (472)	2859* (1283)	.098+ (.059)	.055 (.154)	.013 (.044)	-.332* (.158)
Child Self-Directed X Income/Needs	-712 (622)	-1746 (1812)	-152 (367)	-1794 (1245)	.059 (.036)	.147 (.142)	-.029 (.034)	.434** (.153)
Challenge vs. Affiliation X Parental Income/Needs	1168 (760)	-1864 (1615)	124 (387)	-1922 (1248)	-.077+ (.044)	.116 (.126)	.028 (.037)	-.324* (.154)
Challenge vs. Power X Parental Income/Needs	-585 (896)	783 (1870)	-434 (384)	993 (1205)	-.037 (.052)	.085 (.146)	.012 (.036)	-.030 (.148)
Power vs. Affiliation X Parental Income/Needs	-974 (746)	-2628 (1708)	-28 (431)	1459 (1131)	.043 (.044)	-.060 (.134)	.036 (.040)	.113 (.139)
Fear of Failure X Parental Income/Needs	-1438 (1025)	1614 (1643)	-842+ (450)	84 (1301)	-.187** (.060)	-.238+ (.129)	.003 (.042)	-.334* (.160)
Background Controls								
Father's Education	-190 (147)	-59 (128)	-185* (93)	96 (73)	.006 (.009)	-.005 (.009)	.017* (.009)	-.035** (.009)
Mother's Education	102 (197)	-392** (136)	178+ (102)	-46 (97)	-.020+ (.011)	.010 (.010)	-.108+ (.008)	.022+ (.011)

Table D.14 (Continued)

Predictor Variables	Young Adult's Annual Earnings				Whether Young Adult Received Welfare			
	Males		Females		Males		Females	
	White	Black	White	Black	White	Black	White	Black
Parent's Test Score	-10	-91	70	-78	-003	.009	-.012	.014
	(255)	(167)	(140)	(109)	(.014)	(.013)	(.013)	(.013)
Number of Siblings	88	-238	218*	66	-.005	-.008	-.001	-.003
	(210)	(180)	(111)	(110)	(.012)	(.014)	(.010)	(.014)
Whether South 1968	-664	-512	-701	-964	-.155*	.077	-.140*	-.012
	(1050)	(1033)	(601)	(742)	(.061)	(.081)	(.056)	(.092)
City Size 1968	3	-2	4**	-1	.0001	.0006	-.0001	.0003
	(2)	(3)	(1)	(2)	(.0012)	(.0002)	(.0001)	(.0002)
Parental Income/Needs	2.811*	5253*	1166*	255	.032	-.363+	-.125*	.129
	(1254)	(2648)	(557)	(1716)	(.073)	(.207)	(.052)	(.211)
Mother Only Home	-441	-1145	191	-185	-.032	-.116+	.004	.032
	(1272)	(863)	(636)	(582)	(.074)	(.067)	(.059)	(.072)
Whether Catholic	1156	1030	1087+	9	-.088	-.262+	-.037	-.094
	(920)	(1819)	(566)	(1486)	(.054)	(.142)	(.053)	(.183)
Age of Young Adult 1981	692**	791**	48	170	.003	.046**	-.007	-.004
	(227)	(227)	(145)	(142)	(.013)	(.018)	(.014)	(.017)
Constant	-9,558	-12,288	-5,307	3483	.218	.225	.196	.344
R^2	.156	.288	.277	.257	.146	.259	.147	.257
R^2 Adjusted	.087	.215	.228	.193	.076	.183	.089	.193
Number of Observations	319	258	378	300	319	258	378	300

+ significant at .10 level, two-tailed test
* significant at .05 level, two-tailed test
** significant at .01 level, two-tailed test

Standard errors in parentheses

Table D.15

Regressions of Young Adult's Education and Young Adult's Family Income on Parental Attitudes
(Young Adults Who Formed Own Household by 1981)

	Young Adult's Education				Young Adult's Family Income			
	Males		Females		Males		Females	
Predictor Variables*	White	Black	White	Black	White	Black	White	Black
Efficacy	-.231 (.835)	.164 (.679)	1.975** (.597)	1.077 (.755)	-1481 (3203)	5603* (2813)	2699 (2573)	3499 (2942)
Future Orientation	.471 (.944)	-.206 (.845)	.204 (.617)	-2.205** (.744)	4503 (3625)	-1406 (3502)	-2755 (2660)	-7969** (2901)
Child Self-Directed	1.307* (.644)	2.088** (.752)	.435 (.516)	1.163+ (.720)	-387 (2472)	1251 (3116)	457 (2223)	9506** (2807)
Challenge vs. Affiliation	.790 (.714)	.658 (.742)	.881+ (.536)	.991 (.707)	-4084 (2741)	5489+ (3073)	4766* (2312)	-3676 (2756)
Challenge vs. Power	-1.270 (.920)	.690 (.819)	.140 (.571)	-.220 (.658)	-1538 (3530)	-5184 (3395)	2298 (2461)	-1983 (2565)
Power vs. Affiliation	-.882 (.756)	-.270 (.762)	.110 (.547)	.327 (.626)	3031 (2905)	4348 (3157)	1911 (2359)	-8217** (2440)
Fear of Failure	.090 (.954)	.524 (.733)	.318 (.636)	-1.229+ (.673)	-3829 (3663)	-4008 (3039)	5865* (2740)	-5804* (2624)
Efficacy X Parental Income/Needs	.256 (.256)	-.048 (.474)	-.587** (.179)	-.857 (.572)	-293 (984)	-4847* (1964)	124 (772)	-2641 (2229)
Future Orientation X Parental Income/Needs	-.227 (.278)	.597 (.632)	.190 (.176)	1.977** (.552)	-314 (1065)	13 (2621)	1162 (758)	6991** (2152)
Child Self-Directed X Parental Income/Needs	-.229 (.172)	-1.217* (.563)	.076 (.137)	-.651 (.536)	-6 (660)	-2119 (2334)	-439 (590)	-7727** (2088)
Challenge vs. Affiliation X Parental Income/Needs	-.208 (.210)	.062 (.502)	-.209 (.144)	.202 (.537)	937 (806)	-1895 (2081)	-1108+ (622)	3561+ (2093)
Challenge vs. Power X Parental Income/Needs	.420+ (.248)	-.311 (.582)	-.039 (.143)	.285 (.519)	132 (951)	1552 (2408)	-835 (616)	4165* (2021)
Power vs. Affiliation X Parental Income/Needs	.235 (.206)	.226 (.531)	.233 (.161)	-.459 (.487)	-1307+ (792)	-1318 (2200)	-591 (692)	19 (1897)
Fear of Failure X Parental Income/Needs	-.132 (.283)	-.363 (.511)	-.078 (.168)	.353 (.560)	-521 (1087)	1708 (2117)	-1285+ (723)	463 (2181)
Father's Education	.109** (.041)	.130** (.037)	.087* (.035)	.058+ (.031)	-198 (156)	9 (55)	-391** (150)	427** (122)

Table D.15 (Continued)

	Young Adult's Education				Young Adult's Family Income			
	Males		Females		Males		Females	
Predictor Variables[a]	White	Black	White	Black	White	Black	White	Black
Mother's Education	.162** (.055)	-.016 (.042)	.066+ (.038)	-.030 (.042)	119 (209)	-320+ (176)	214 (164)	-504** (162)
Parent's Test Score	.048 (.070)	-.053 (.052)	.094+ (.052)	-.047 (.046)	-238 (271)	4 (214)	-118 (225)	-342+ (182)
Number of Siblings	-.052 (.058)	-.053 (.056)	-.015 (.041)	-.025 (.048)	-319 (222)	14 (232)	75 (179)	-688** (184)
Whether South 1968	.187 (.290)	.803* (.321)	-.084 (.224)	-.529+ (.319)	-1107 (1114)	-31 (1330)	-376 (964)	223 (1243)
City Size 1968	-.000009 (.0006)	-.003 (.0008)	-.0003 (.0004)	-.002 (.0007)	3 (2)	-2 (4)	7** (2)	-1 (3)
Parental Income/Needs	-.069 (.346)	.938 (.823)	.538** (.207)	-.341 (.738)	1487 (1329)	5927+ (3410)	2612** (894)	-4910+ (2877)
Mother Only Home	.184 (.351)	.031 (.268)	.493* (.236)	.075 (.250)	-586 (1349)	-1075 (1112)	-1751+ (1020)	1509 (976)
Whether Catholic	.346 (.254)	.137 (.565)	-.107 (.210)	.770 (.639)	2635** (976)	193 (2342)	1148 (909)	6329** (2491)
Age of Young Adult 1981	.161** (.062)	.077 (.070)	.117* (.053)	.108+ (.061)	1073** (240)	913** (292)	683** (233)	920** (238)
Constant	5.02* (2.24)	8.91** (2.21)	4.14** (1.69)	10.40** (1.97)	-6,990 (8,609)	-13,891 (9,143)	-9,880 (7,305)	5,230 (7,665)
R^2	.328	.303	.428	.233	.203	.198	.174	.457
R^2 Adjusted	.274	.231	.388	.166	.138	.116	.118	.410
Number of Observations	319	258	378	300	319	258	378	300

+ significant at .10 level, two-tailed test
* significant at .05 level, two-tailed test
** significant at .01 level, two-tailed test

Standard errors in parentheses

Table D.16

Regressions of Young Adult's Work Hours and Young Adult's Labor Force Hours on Parental Attitudes (Young Adults Who Formed Own Househoih by 1981)

	Young Adult's Work Hours				Young Adult's Labor Force Hours			
	Males		Females		Males		Females	
Predictor Variables"	White	Black	White	Black	White	Black	White	Black
Efficacy	-56 (200)	210 (215)	396+ (222)	339 (283)	-164 (178)	145 (166)	356 (223)	103 (271)
Future Orientation	723** (226)	130 (268)	102 (229)	-463+ (279)	689** (201)	343+ (207)	106 (230)	-303 (268)
Child Self-Directed	-67 (154)	68 (238)	7 (191)	490+ (270)	-132 (137)	-19 (184)	1 (192)	264 (259)
Challenge vs. Affiliation	-373* (171)	469* (235)	462* (199)	333 (265)	-245 (152)	59 (181)	482* (200)	186 (254)
Challenge vs. Power	-142 (220)	-476+ (259)	94 (212)	108 (246)	52 (196)	-546** (200)	47 (213)	232 (237)
Power vs. Affiliation	292 (181)	486* (241)	174 (203)	-522* (234)	274+ (161)	374* (186)	145 (204)	-249 (225)
Fear of Failure	267 (228)	-636** (232)	319 (236)	20 (252)	349+ (203)	-407* (179)	254 (237)	32 (242)
Efficacy X Parental Income/Needs	24 (61)	-185 (150)	-50 (67)	-85 (214)	48 (55)	-175 (116)	-47 (67)	49 (206)
Future Orientation X Parental Income/Needs	-210** (66)	-108 (200)	-5 (65)	115 (207)	-202** (59)	-410** (155)	-16 (66)	-67 (198)
Child Self-Directed X Parental Income/Needs	-15 (41)	116 (178)	6 (51)	-134 (201)	6 (37)	134 (138)	10 (51)	12 (193)
Challenge vs. Affiliation X Parental Income/Needs	84+ (50)	-27 (159)	-30 (54)	-533** (201)	53 (45)	203+ (123)	-32 (54)	-422* (193)
Challenge vs. Power X Parental Income/Needs	25 (59)	407* (184)	-23 (53)	56 (194)	-22 (53)	306* (142)	-5 (53)	-63 (186)
Power vs. Affiliation X Parental Income/Needs	-68 (49)	-120 (168)	-4 (60)	216 (182)	-77+ (44)	-54 (130)	1 (60)	89 (175)
Fear of Failure X Parental Income/Needs	-59 (68)	463** (162)	-87 (62)	-109 (210)	-75 (60)	278* (125)	-66 (63)	-70 (201)
Father's Education	-14 (9)	-10 (12)	-30* (13)	12 (12)	-19* (9)	5 (9)	-30* (13)	1 (11)

Table D.16 (Continued)

	Young Adult's Work Hours				Young Adult's Labor Force Hours			
	Males		Females		Males		Females	
Predictor Variables"	White	Black	White	Black	White	Black	White	Black
Mother's Education	6 (13)	-12 (13)	30* (14)	-2 (16)	0 (11)	0 (10)	31* (14)	5 (15)
Parent's Test Score	-15 (17)	28+ (16)	15 (19)	2 (17)	-12 (15)	9 (13)	13 (20)	6 (17)
Number of siblings	7 (14)	-8 (17)	27+ (15)	-12 (18)	13 (12)	-10 (14)	27+ (15)	-5 (17)
Whether South 1968	54 (69)	192+ (102)	-14 (83)	18 (119)	-12 (62)	159* (79)	-54 (83)	43 (114)
City Size 1968	0 (1)	-1 (1)	0 (1)	0 (1)	0 (1)	-1 (1)	0 (1)	0 (1)
Parental Income/Needs	128 (83)	-200 (261)	149* (77)	324 (277)	158* (74)	-39 (201)	127+ (77)	394 (265)
Mother only home	-5	-117	81	-55	-58	87	80	-79
Whether Catholic	85 (61)	-145 (179)	132+ (78)	-84 (239)	11 (54)	-289* (138)	77 (79)	-212 (229)
Age of Young Adult 1981	5 (15)	75** (22)	-18 (20)	-8 (23)	-5 (13)	46** (17)	-23 (20)	-8 (22)
Constant	1,745** (536)	-510 (698)	287 (629)	1,203 (736)	2,088** (479)	627 (539)	659 (632)	1,170 (707)
R^2	.127	.326	.167	.194	.142	.346	.155	.162
R^2 Adjusted	.056	.256	.110	.124	.072	.279	.098	.088
Number of Observations	319	258	378	300	319	258	378	300

+ significant at .10 level, two-tailed test
* significant at .05 level, two-tailed test
** significant at .01 level, two-tailed test

Standard errors in parentheses

Table D.17

Regressions of Young Adult's Income to Needs on Parental Attitudes Using Weight Adjusted for Likelihood of Splitting Off
(Young Adults Who Formed Own Household by 1981)

Predictor Variables*	Young Adult's Income/Needs			
	Males		Females	
	White	Black	White	Black
Efficacy	-.152 (.522)	.727 (.463)	.654+ (.383)	.365 (.493)
Future Orientation	1.117+ (.584)	-.290 (.574)	-.366 (.394)	-1.386** (.477)
Child Self-Directed	-.001 (.399)	-.454 (.513)	.204 (.335)	1.424** (.470)
Challenge vs. Affiliation	-.867* (.437)	1.353** (.505)	.859* (.347)	-.143 (.314)
Challenge vs. Power	-.758 (.572)	-.704 (.559)	.358 (.365)	-.221 (.425)
Power vs. Affiliation	.577 (.469)	.821 (.517)	.309 (.354)	-1.437** (.395)
Fear of Failure	-.464 (.594)	-.820 (.505)	1.116** (.411)	-1.321** (.433)
Efficacy X Parental Income/Needs	-.080 (.159)	-.634+ (.324)	-.042 (.116)	-.210 (.365)
Future Orientation X Parental Income/Needs	-.236 (.171)	.005 (.430)	.190+ (.113)	1.145** (.337)
Child Self-Directed X Parental Income/Needs	-.032 (.106)	.227 (.386)	-.103 (.089)	-.996** (.344)
Challenge vs. Affiliation X Parental Income/Needs	.277* (.128)	-.461 (.344)	-.168+ (.094)	.339 (.334)
Challenge vs. Power X Parental Income/Needs	.173 (.152)	.187 (.400)	-.119 (.092)	.416 (.322)
Power vs. Affiliation X Parental Income/Needs	-.203 (.127)	-.378 (.364)	-.044 (.104)	.212 (.283)
Fear of Failure X Parental Income/Needs	-.128 (.724)	.563 (.359)	-.245* (.109)	.538 (.344)
R^2	.238	.255	.262	.393
R^2 Adjusted	.176	.178	.212	.340
Number of Observations	319	258	378	300

*Other predictor variables included in the analysis were: Father's Education, Mother's Education, Parent's Test Score, Number of Siblings, Whether South 1968, City Size 1968, Parental Income/Needs, Mother Only Home, Whether Catholic, and Age of Young Adult 1981.

Table D.18

Regressions of Young Adult's Annual Earnings and Whether Young Adult Received Welfare on Parental Attitudes (All Young Adults)

Predictor Variables*	Young Adult's Annual Earnings				Whether Young Adult Received Welfare			
	Males		Females		Males		Females	
	White	Black	White	Black	White	Black	White	Black
Efficacy	-2271 (2930)	2466 (2159)	3054+ (1587)	124 (1586)	-.025 (.213)	.131 (.209)	-.445* (.176)	-.520* (.241)
Future Orientation	7861* (3218)	-3337 (2587)	-440 (1634)	-3541* (1601)	-061 (.234)	-.327 (.251)	-.075 (.182)	.513* (.244)
Child Self-Directed	-318 (2284)	-193 (2273)	1411 (1365)	1022 (1483)	-.398* (.166)	-.300 (.220)	.199 (.152)	-.716** (.226)
Challenge vs. Affiliation	-1603 (2571)	5260* (2361)	2109 (1418)	362 (1401)	.254 (.187)	-.381+ (.229)	-.273+ (.158)	.163 (.213)
Challenge vs. Power	-2448 (3201)	-7302** (2480)	340 (1509)	38 (1280)	.042 (.253)	-.256 (.240)	-.054 (.168)	-.147 (.195)
Power vs. Affiliation	2884 (2720)	2548 (2360)	1015 (.1428)	-4395** (1352)	-.250 (.198)	-.008 (.229)	-.200 (.159)	.361+ (.206)
Fear of Failure	-265 (2922)	-3969+ (2140)	3378* (1663)	-3152* (1414)	.392+ (.212)	-.049 (.207)	-.194 (.185)	.460* (.215)
Efficacy X Parental Income/Needs	920 (869)	-1559 (1391)	-129 (477)	1082 (1132)	-.005 (.063)	.073 (.135)	.097+ (.053)	.421* (.172)
Future Orientation X Parental Income/Needs	-1799* (922)	2188 (1751)	15 (467)	1656 (1107)	.068 (.067)	.292+ (.170)	-.028 (.052)	-.196 (.169)
Child Self-Directed X Parental Income/Needs	-15 (602)	-111 (1560)	-129 (.362)	-175 (.1012)	.120** (.044)	.051 (.151)	-.029 (.040)	.567** (.154)
Challenge vs. Affiliation X Parental Income/Needs	305 (733)	-2312 (1559)	165 (380)	-182 (.985)	-.060 (.053)	.130 (.151)	.045 (.042)	-.179 (.150)
Challenge vs. Power X Parental Income/Needs	-176 (854)	5245** (1584)	-451 (380)	677 (837)	-.030 (.062)	.253+ (.153)	.021 (.042)	.067 (.127)
Power vs. Affiliation X Parental Income/Needs	-1571* (743)	-275 (1571)	-52 (413)	2577** (990)	.015 (.054)	.112 (.152)	.052 (.046)	.121 (.151)
Fear of Failure X Parental Income/Needs	-706 (801)	2069 (1488)	-605 (439)	2477* (1058)	-.124* (.058)	-.176 (.144)	.015 (.049)	-.335* (.161)
R^2	.181	.203	.247	.231	.182	.260	.117	.401
R^2 Adjusted	.123	.136	.199	.174	.123	.199	.061	.357
Number of Observations	361	314	403	350	361	314	403	350

*Other predictor variables included in the analysis were: Father's Education, Mother's Education, Parent's Test Score, Number of Siblings, Whether South 1968, City Size 1968, Parental Income/Needs, Mother Only Home, Whether Catholic, and Age of Young Adult 1981.

+ significant at .10 level, two-tailed test
* significant at .05 level, two-tailed test
** significant at .01 level, two-tailed test

Table D.19

Regression of Young Adult's Income/Needs on Parental Attitudes
(Sample of Splitoffs With Highest Income/Needs in the Family)

	Young Adult's Income/Needs			
	Males		Females	
Predictor Variables	White	Black	White	Black
Efficacy	-.419 (.645)	1.057+ (.599)	.545 (.456)	.233 (.635)
Future Orientation	1.355+ (.804)	-1.073 (.749)	-.699 (.464)	-1.750** (.668)
Child Self-Directed	.070 (.498)	-1.074+ (.652)	.079 (.407)	.863 (.569)
Challenge vs. Affiliation	-1.083* (.532)	2.009** (.663)	.593 (.405)	-.562 (.608)
Challenge vs. Power	-.937 (.666)	-.875 (.772)	.596 (.429)	-.246 (.569)
Power vs. Affiliation	.942+ (.542)	1.377+ (.742)	.241 (.436)	-1.335* (.538)
Fear of Failure	-.609 (.811)	-.325 (.642)	1.287** (.476)	-1.539** (.549)
Efficacy X Parental Income/Needs	.048 (.191)	-.793* (.403)	-.097 (.133)	-.261 (.436)
Future Orientation X Parental Income/Needs	-.290 (.236)	.806 (.550)	.284* (.125)	1.309** (.457)
Child Self-Directed X Parental Income/Needs	-.085 (.131)	.491 (.475)	-.007 (.108)	-.692+ (.409)
Challenge vs. Affiliation X Parental Income/Needs	.290+ (.153)	-.936* (.428)	-.154 (.107)	.237 (.419)
Challenge vs. Power X Parental Income/Needs	.314+ (.181)	.387 (.501)	-.112 (.102)	.784+ (.449)
Power vs. Affiliation X Parental Income/Needs	-.244+ (.143)	-.440 (.485)	-.068 (.128)	-.035 (.422)
Fear of Failure X Parental Income/Needs	-.004 (.234)	.531 (.429)	-.326** (.125)	1.053* (.425)
R^2	.269	.342	.287	.455
R^2 Adjusted	.173	.227	.215	.369
Number of Observations	208	162	264	178

Other predictor variables included in the analysis were: Father's Education, Mother's Education, Parent's Test Score, Number of Siblings, Whether South 1968, City Size 1968, Parental Income/Needs, Mother Only Home, Whether Catholic, and Age of Young Adult 1981.

+ significant at .10 level, two-tailed test
* significant at .05 level, two-tailed test
** significant at .01 level, two-tailed test

Table D.20

Regressions of Young Adult's Family Income to Needs on Parental Attitudes with Young Adults's Education as a Predictor
(Young Adults Who Formed Own Households by 1981)

Predictor Variables^a	Young Adult's Family Income/Needs			
	Males		Females	
	White	Black	White	Black
Efficacy	-.102 (.506)	.657+ (.388)	.383 (.384)	.132 (.445)
Future Orientation	1.005+ (.573)	-.309 (.483)	-.397 (.391)	-.968* (.445)
Child Self-Directed	-.121 (.393)	-1.097* (.437)	.131 (.327)	1.089* (.425)
Challenge vs. Affiliation	-.962* (.434)	1.151* (.424)	.700* (.341)	-.138 (.417)
Challenge vs. Power	-.482 (.560)	-.998* (.468)	.330 (.362)	-.330 (.387)
Power vs. Affiliation	.658 (.460)	.966 (.435)	.301 (.347)	-1.440** (.368)
Fear of Failure	-.621 (.579)	-.832* (.419)	1.073** (.403)	-1.007* (.398)
Efficacy X Parental Income/Needs	-.122 (.156)	-.592* (.271)	.039 (.115)	-.042 (.338)
Future Orientation X Parental Income/Needs	-.164 (.169)	-.138 (.362)	.166 (.112)	.737* (.332)
Child Self-Directed X Parental Income/Needs	-.018 (.105)	.606+ (.325)	110 (.087)	-.810** (.316)
Challenge vs. Affiliation X Parental Income/Needs	.282* (.128)	-.532* (.286)	-.132 (.092)	.017 (.316)
Challenge vs. Power X Parental Income/Needs	.093 (.151)	.332 (.332)	-.112 (.091)	.565+ (.305)
Power vs. Affiliation X Parental Income/Needs	-.216 (.125)	-.302+ (.303)	-.080 (.102)	.240 (.287)
Fear of Failure X Parental Income/Needs	-.077 (.172)	.588* (.292)	-.235* (.106)	.470 (.329)
Young Adult's Education	.117** (.035)	.374** (.037)	.137** (.034)	.231** (.035)
R^2	.270	.479	.291	.476
R^2 Adjusted	.208	.424	.241	.428
Number of Observations	319	258	378	300

"Other predictor variables included in the analysis were: Father's Education, Mother's Education, Parent's Test Score, Number of Siblings, Whether South 1968, City Size 1968, Parental Income/Needs, Mother Only Home, Whether Catholic, and Age of Young Adult 1981.

+ significant at .10 level, two-tailed test
* significant at .05 level, two-tailed test
** significant at .01 level, two-tailed test

Table D.21

Regressions of Young Adult's Income to Needs on Parental Attitudes With Intermediate Outcomes Included As Predictors
(Young Adults Who Formed Own Households by 1981)

	Young Adults Income/Needs			
	Males		Females	
	White	Black	White	Black
Efficacy	-.101 (.508)	.853* (.394)	.393 (.386)	.096 (.448)
Future Orientation	.999+ (.576)	-.246 (.480)	-.395 (.392)	-.946* (.448)
Child Self-Directed	-.116 (.397)	-1.081* (.433)	.144 (.329)	1.138** (.432)
Challenge vs. Affiliation	-.969* (.437)	1.244** (.425)	.693* (.343)	-.136 (.426)
Challenge vs. Power	-.479 (.562)	-1.055* (.466)	.319 (.363)	-.276 (.393)
Power vs. Affiliation	.652 (.465)	.936* (.434)	.291 (.348)	-1.452** (.369)
Fear of Failure	-.600 (.592)	-.851* (.418)	1.128** (.409)	-1.065** (.403)
Efficacy x Parental Income/Needs	-.123 (.156)	-.709** (.274)	.039 (.116)	-.027 (.339)
Future Orientation x Parental Income/Needs	-.163 (.170)	-.255 (.363)	.164 (.112)	.729* (.336)
Child Self-Directed x Parental Income/Needs	-.019 (.106)	.624+ (.322)	-.113 (.087)	-.843** (.319)
Challenge vs. Affiliation x Parental Income/Needs	.284* (.129)	-.565* (.286)	-.126 (.092)	.051 (.327)
Challenge vs. Power x Parental Income/Needs	.092 (.152)	.307 (.330)	-.109 (.091)	.541+ (.309)
Power vs. Affiliation x Parental Income/Needs	-.214+ (.126)	-.490 (.301)	-.079 (.102)	.245 (.287)
Fear of Failure x Parental Income/Needs	-.080 (.174)	.625* (.291)	-.245* (.108)	.531 (.335)

	Young Adults Income/Needs			
	Males		Females	
	White	Black	White	Black
Background Controls				
Father's Education	-.034 (.025)	-.048* (.022)	-.062* (.022)	.052** (.019)
Mother's Education	.034 (.034)	-.060* (.024)	.033 (.024)	-.063* (.025)
Parent's Test Score	-.051 (.043)	.006 (.030)	-.021 (.033)	-.032 (.028)
Number of Siblings	-.046 (.036)	.048 (.032)	.021 (.026)	-.081** (.028)
Whether South in 1968	-.208 (.177)	.159 (.185)	-.081 (.144)	-.205 (.190)
City Size 1968	.0005 (.0003)	.0007 (.0005)	.0012** (.0003)	.0001 (.0004)
Parental Income/Needs	.223 (.211)	.856+ (.476)	.403** (.133)	-.805+ (.439)
Mother Only Home	.037 (.219)	-.175 (.152)	-.210 (.152)	.158 (.148)
Whether Catholic	.465** (.156)	-.179 (.321)	.252+ (.134)	.459 (.399)
Age of Young Adult 1981	.109** (.039)	.117** (.040)	.069* (.035)	.096** (.037)
Intermediate Outcomes				
Education	.117** (.036)	.376** (.037)	.146** (.036)	.235** (.037)
Had Child Before Age 20	.192 (.592)	-.804* (.387)	.004 (.226)	-.101 (.186)
Married Before Age 20	.013 (.213)	.370 (.280)	.106 (.131)	.158 (.158)
Constant	-.750	-5.663	-2.249	-.881
R^2	.271	.494	.292	.479
R^2 Adjusted	.203	.434	.238	.427
Number of Observations	319	258	378	300

Table D.22

Regressions of Young Adult's Welfare Receipt on Parent's Welfare Receipt and Attitudes

Predictor Variables	White Males		Black Males		White Females		Black Females	
Whether Parents Received Welfare	.161* (.064)	.167* (.065)	.007 (.072)	-.013 (.073)	.177** (.059)	.158** (.061)	.149+ (.088)	.098 (.086)
Parental Efficacy		-.075 (.075)		.097 (.093)		-.189* (.077)		.019 (.107)
Parental Future Orientation		.083 (.089)		.077 (.105)		-.125 (.082)		-.071 (.113)
Parental Achievement Motivation								
Child Self-Directed		-.019 (.065)		-.218** (.090)		.089 (.065)		.250* (.098)
Challenge vs. Affiliation		.046 (.069)		-.177* (.089)		-.097 (.078)		-.157+ (.092)
Challenge vs. Power		.043 (.081)		.038 (.104)		.083 (.082)		-.196* (.094)
Power vs. Affiliation		-.029 (.075)		.114 (.096)		.038 (.066)		.296** (.092)
Fear of Failure		.127 (.093)		-.215* (.099)		-.108 (.090)		.099 (.103)
Father's Education	.006 (.008)	.007 (.008)	-.003 (.008)	-.008 (.009)	.016* (.008)	.018* (.008)	-.034** (.009)	-.035** (.009)
Mother's Education	-.020+ (.011)	-.019+ (.011)	.013 (.010)	.014 (.011)	-.024** (.009)	-.020* (.009)	.023* (.011)	.024* (.012)
# Siblings	-.004 (.011)	-.004 (.011)	.012 (.013)	.004 (.014)	-.003 (.010)	-.003 (.010)	.0011 (.013)	.0004 (.013)
Mother only Home	.012 (.068)	-.021 (.073)	-.131* (.065)	-.110 (.065)	.010 (.056)	-.007 (.058)	.0005 (.068)	.0042 (.071)
Parent's Income/Needs	-.034* (.017)	-.032+ (.017)	-.143** (.045)	-.149** (.046)	-.024* (.011)	-.019+ (.011)	.048 (.050)	.036 (.051)
Catholic	-.091+ (.053)	-.086 (.054)	-.098 (.124)	-.151 (.127)	-.023 (.049)	-.018 (.050)	.029 (.187)	-.124 (.187)
South Region	-.129* (.059)	-.136* (.061)	.073 (.074)	.121 (.077)	-.151** (.054)	-.142* (.055)	.041 (.090)	.023 (.093)
City Size	-.001 (.001)	.001 (.001)	.0001 (.0002)	.0007** (.0002)	-.00004 (.0001)	-.00007 (.0001)	.0001 (.0002)	.0001 (.0001)

Table D.22 (Continued)

Predictor Variables	White Males		Black Males		White Females		Black Females	
IQ Score	.003 (.014)	.004 (.015)	.006 (.012)	.011 (.013)	-.013 (.013)	-.011 (.013)	.019 (.013)	.028* (.013)
Age of Individual	.002 (.013)	.001 (.013)	.070** (.017)	.056** (.017)	-.0003 (.013)	-.0004 (.013)	-.0009 (.017)	.002 (.017)
Adj. R'	.071	.065	.137	.164	.087	.106	.072	.137
Number of Observations	319	319	258	258	378	378	200	300

+ significant at .10 level, two-tailed test
* significant at .05 level, two-tailed test
** significant at .01 level, two-tailed test

Standard errors in parentheses

APPENDIX E

DESCRIPTION OF SUBSAMPLES USED IN SHORT-RUN ANALYSIS

Our general concern in this project is with the role of motivational factors among low income households. The structure of the Panel Study data set require us to limit our analysis to the attitudes of the heads of households, since only they were asked the attitudinal items.[54] We further sought to limit the PSID sample to the lower portion of the income distribution in a way that would not bias the analysis of short-run income change.

Individuals selected into the sub-sample were between the ages of 21 and 50 and were themselves the respondents in 1972.[55] Furthermore, they gave valid (non-missing) information on the crucial efficacy, control over life, challenge/affiliation, and challenge/power items. The group of policy concern is the economically disadvantaged so the additional restriction that all household heads had average earnings in the bottom half of the average earnings distribution of male workers during the three years prior to 1972 was imposed. None of the black female household heads were excluded by this restriction, while 4 white female heads, 69 black male heads, and 591 white male heads were excluded from the sample on the basis of their 1969-71 mean earnings. The resulting sample contained 430 black women, 281 white women, 380 black men and 643 white men. All data have been weighted to adjust for the differential initial sampling probabilities and differential nonresponse.

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[54] The PSID defines the husband to be the "head" of husband-wife families. Men and women who are unmarried but living together in what appears to be a fairly permanent arrangement are considered to be a couple in the same economic and demographic sense as married couples. Wives were interviewed in 1976 and the attitudinal information collected from them may be used in our subsequent analyses.

[55] In some cases, interviews with proxy respondents are taken in the PSID if the household head was unwilling to be interviewed. Sometimes with married couples the interview is conducted with the wife of the head rather than the head himself, although this only happens for approximately 11% of the sample. Since the attitudinal items cannot be reported reliably by proxy respondents, we excluded all of these cases. A similar restriction was not imposed in subsequent years since the only attitudinal measures used were those collected in 1972. Information gathered from later years such as reports of the head's work hours and income were judged to be reported with sufficient accuracy by a proxy

Earnings prior to 1972 were used in the restriction to avoid the selection of individuals with temporary and unusually low earnings or family income in 1972. Subsequent increases in economic well-being for these individuals would be the spurious result of their negative earnings residual in 1972. We chose to base the restriction on individual earnings rather than family income to avoid complications caused by the fact that some of the 1972 household heads were sons and daughters in prior years and their parental family income during those years is irrelevant for the purposes of this study.

Prime aged household heads were chosen to avoid confounding the effects of efficacy on income and other outcome measures with age-related decisions such as retirement or leaving home.[56] The household head is virtually always defined to be the husband when the household contains a married pair so the women in our sample are, with a few exceptions, unmarried and not living with a "husband-like" person in 1972.

Description of Demographic and Outcome Measures

Table E.1 presents some basic demographic information about each of the four subsamples. The figures on the table conform to well-known differences in the economic and geographic position of families headed by black and white men and women but also confirm some surprising facts about the nature of short-run patterns of welfare receipt and dependency found in other analyses of PSID data (Rein and Rainwater, 1978 and Duncan et al., 1983).

Demographic Variables. The first five measures listed on Table E.1 are control variables included in all of the regression analyses. Average amounts of

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respondent. It was felt that the benefits of including this possibly imprecise information from proxy respondents outweighed the costs of losing these cases completely.

[56] Individuals typically become household heads or wives upon leaving their parental home. Individuals leaving to attend school, unless they appear quite financially independent of their parents, are not considered to have left home so there is a relatively small group of very young household heads and this group tends to be fairly idiosyncratic. By the age of 21 a somewhat larger and more representative group of individuals have split off and formed their own households. The cut-off at age 50 in 1972 means that individuals are no older than 55 in the last year of the analysis, 1977.

Table E.1

Demographic Characteristics of Subsamples

Demographic Characteristics	White Men	Black Men	White Women	Black Women
Age in 1972	31.9 (8.6)	32.7 (8.7)	33.4 (9.2)	35.2 (9.5)
Years of Education	11.8 (3.1)	10.1 (3.5)	11.8 (2.8)	10.4 (2.9)
Whether South in 1972	.324 (.468)	.651 (.478)	.213 (.411)	.383 (.487)
ln City Size in 1972	11.31 (1.49)	11.92 (1.42)	11.90 (1.42)	12.34 (1.23)
Test Score in 1972	9.98 (1.82)	8.23 (2.04)	9.87 (1.88)	8.16 (2.33)
Whether Children Aged 1-5 in 1972	.412 (.493)	.368 (.483)	.196 (.398)	.397 (.490)
Whether Wife in 1968	-	-	.377 (.486)	.158 (.365)
Whether Daughter in 1968	-	-	.229 (.421)	.213 (.410)
Average Earnings 1969-71 (in 1981 dollars)	12,416 (4,511)	11,270 (4,441)	7,653 (5,561)	4,326 (4,241)
Labor Force Status in 1972:				
(1) 1972 Work Hours > 1000	.912	.881	.732	.473
(2) 1972 Work Hours 250-999	.032	.060	.078	.108
1972 Work Hours <250 and:				
(3) Working at Time of 1972 Interview	.007	.011	.029	.121
(4) Expecting to Work in Future	.028	.039	.065	.107
(5) Not Expecting to Work	.021 1.000	.009 1.000	.096 1.000	.190 1.000
Number of Observations	579	314	208	410

NOTE: All samples consist of household heads in 1972 between the ages of 21 and 50 with 1969-71 average labor income in the bottom half of the average male labor income distribution. Table entries are means; standard deviations are given in parentheses.

educational attainment are substantially higher for both group of whites, as are the test scores.[57] Blacks, especially the female heads, were more likely to live in bigger cities, while black male household heads were the most likely to live in the Southern region.

Although each of the female subsamples consists of heads of household as of 1972, many had had some other family relationship in prior years. More than one-third of the white women had been married in 1968, the first year of the PSID, and nearly one-fifth of each group of women had been living with their parents at that time. By the same token, family arrangements subsequent to 1972 change as well: more than one-third of white women but less than one-tenth of the black women were married in 1977, a differential consistent with other research on the headship status of women.

The labor force status of black female heads was quite different from the white female heads and from male heads. Almost everyone in the two groups of men had worked at least some in 1972; nearly nine in ten had worked more than 1,000 hours. More than four-fifths of the white female heads had worked at least 250 hours in that year. Fewer than half of the black women had worked this much, however, although only one-fifth of the black women were so far out of the labor force that they were not at least expecting to work in the next few years. The average earnings of the four groups reflect these differences in participation as well as the well-known pay gap between men and women.

Outcome Variables. The focus of prior research on attitudes and economic status with the PSID and NLS data was on men. For them, labor market outcomes such as earnings and occupational attainment are the most natural measures of "success" or "failure." With groups of female household heads and even with the lower status men, these same outcomes may be those of special policy interest but it is not at all obvious that they are the most relevant for the individuals involved. If labor market opportunities are constrained by lack of qualifications, discrimination, or the presence of young children, then successful outcomes for the more motivated may take the form of steady jobs with little unemployment but low pay, increased family income from other sources, marriage, or reduced needs through family planning.

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[57] The test score measure is the number of correct answers on a sentence completion test administered in the 1972 questionnaire.

Table E.2 describes various outcomes measures for each of the four subsamples. Both initial levels of the outcome (usually in logarithmic form) and the percentage growth in most of the outcome are shown.**

Most of the growth rates in the various outcomes had small average values but very large standard deviations, indicating tremendous diversity in the experiences of the individuals in these groups. Average growth in the two labor market measures of work hours and earnings were negative but small for all groups except black women. Average family income and income/needs growth was positive indicating that, on average, individuals in each of these four groups were successful in keeping these two income measures growing faster than the rate of inflation. Very few of the male household heads received income from welfare sources. For the female heads, growth in welfare income and welfare dependence was negative. Changes in family income from two other sources--money received from private sources outside the household and the income of individuals other than the head and (if present) the wife, living within the household--are also included in our list of outcomes.

The figures on the dynamics of the receipt of welfare income on the second page of Table E.2 confirm the picture of high turnover shown in other studies using PSID data (Duncan et al., 1983, Ch. 3). Very few (2.3%) of the white male household heads were receiving cash income from welfare sources in 1972. About one-tenth of the black male heads were receiving it at that time and only a

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**The growth rate is calculated by regressing, for each individual, the natural logarithm of the outcome variable on time. The slope coefficient represents the percentage change in the outcome variable per year. In effect, it is a more sophisticated measure of change than a simple difference between the first and last years of the period because it takes advantage of all of the information in the intervening years and is, therefore, less sensitive to measurement error in the end years. These growth rates were all truncated at +1.00 and -1.00 to avoid problems with extreme cases.

Table E.2

Descriptive Information on Outcomes Variables

Outcome Variables	White Men	Black Men	White Women	Black Women
Work Hours: ln 1972 level	7.45	7.32	6.25	4.74
	(1.18)	(1.26)	(2.66)	(3.39)
% Growth 1972-76	-.031	-.029	-.028	.032
	(.277)	(.323)	(.475)	(.562)
Labor Income: ln 1972 level	9.36	9.09	7.70	5.67
	(1.49)	(1.44)	(3.27)	(4.06)
% Growth 1972-76	-.011	-.010	-.033	.035
	(.299)	(.322)	(.507)	(.549)
Family Income: ln 1972 level	.985	9.56	9.55	9.05
	(0.68)	(0.59)	(0.71)	(0.68)
% Growth 1972-76	.027	.038	.064	.022
	(.188)	(.194)	(.280)	(.254)
Family Income/Needs: ln 1972 level	1.025	.692	.874	.242
	(.568)	(.619)	(.672)	(.625)
% Growth 1972-76	.024	.039	.053	.024
	(.179)	(.186)	(.237)	(.235)
Welfare Income: ln 1972 level	.183	.736	1.298	4.263
	(1.198)	(2.277)	(3.013)	(4.183)
% Growth 1972-76	.005	-.047	-.030	-.144
	(.197)	(.338)	(.382)	(.528)
Welfare/Income: 1972 level	.011	.033	.104	.368
	(.088)	(.130)	(.274)	(.424)
Av. annual change 1972-76	.001	-.004	-.007	-.025
	(.022)	(.051)	(.080)	(.125)
% Growth in Money Received from Friends & Relatives Outside Household 1972-76	-.011	-.002	-.044	-.011
	(.280)	(.227)	(.429)	(.386)
% Growth in Income of Others (not husband or wife) in Household 1972-76	.053	.088	.122	.036
	(.520)	(.548)	(.611)	(.595)
Change in Number of "Other" Adults	.054	-.013	.388	.177
	(.628)	(.959)	(.863)	(.843)
Whether Married or Living Together in 1977	-	-	.365	.088
	-	-	(.483)	(.283)

Table E.2 (Continued)

Outcome Variables		White Men	Black Men	White Women	Black Women
Whether Working and Not Receiving Welfare: 1972		.878 (.328)	.894 (.308)	.651 (.478)	.394 (.489)
Change 1972-76:	+1	.080	.074	.172	.163
	0	.848	.839	.764	.773
	-1	.072	.087	.064	.064
		1.000	1.000	1.000	1.000
Whether Children under Six and Receiving Welfare: 1972		0.0 (0.0)	0.0 (0.0)	.072 (.260)	.252 (.435)
Change 1972-76:	+1	010	0	.016	.071
	0	.990	1.00	.928	.745
	-1	0	0	.056	.184
		1.000	1.000	1.000	1.000
Whether Receiving Welfare: 1972		.023	.092	.149	.513
Years of Receipt 1972-76	0	.947	.822	.793	.373
	1	.023	.080	.059	.106
	2	.011	.043	.034	.065
	3	.003	.036	.035	.023
	4	.007	.004	.025	.106
	5	.007	.015	.055	.326
		1.000	1.000	1.000	1.000
Whether Welfare Dependent: 1972		.010	.017	.099	.374
Years of Dependence 1972-76	0	.978	.933	.865	.520
	1	.009	.046	.046	.059
	2	.008	.006	.019	.094
	3	.001	.001	.010	.065
	4	0	.014	.021	.074
	5	.003	0	.039	.189
		1.000	1.000	1.000	1.000
Number of Observations		579	314	208	410

NOTE: All samples consist of household heads in 1972 between the ages of 21 and 50 with 1969-71 average labor income in the bottom half of the average male labor income distribution. Table entries are means; standard deviations are given in parentheses.

little over that fraction (14.9%) of white female heads were receiving it. The comparable fraction for black female heads was much larger (51.3%). The fraction of each of these groups that were dependent upon welfare income in the sense that it accounted for as much as half of the total family's income was considerably smaller than the welfare receipt figures for each of the groups. The fraction within each group that could be classified as persistent recipients or persistently dependent upon welfare is even smaller. Fewer than one-third of the black female heads received welfare in every one of the five years between 1972 and 1976; less than one-fifth of them were persistently dependent upon welfare during that time. Virtually none of the male household heads were persistently dependent upon welfare income. Persistent dependence among white women was also quite rare (3.9%).

The final two outcome measures listed on Table E.2 are more qualitative indicators of "success" or "failure." The first is a dichotomous measure of whether the household head was working at least 1,000 hours and not receiving welfare. The second is also dichotomous, indicating whether the household head was unmarried, had children under six years of age living with them and was receiving welfare income. The 1972 means on these variables shows that two-thirds of the white women were working and not receiving welfare compared to about three-eighths of the black women. Less than ten percent of the white women had small children and were receiving welfare, compared to about one-quarter of the black women. A change measure of these outcome measures was created by subtracting its 1972 value from its 1977 value. The distribution of this change measure is also shown on the table. Of the 25.2% of the black women who had young children and were receiving welfare in 1972, nearly three-quarters (18.4/25.2), were not in a similar situation in 1977. On the other hand, an additional 7.1% of the black female heads had entered this state. And while 7.2% of the white female heads began the 1972-1977 period with small children and receiving welfare, more than three-quarters (5.6/7.2) were not in that state at the end of it.

APPENDIX F

DETAILED TABLES FOR INTRAGENERATIONAL ANALYSIS

Appendix Table F.1

Regression Results on the Effects of Attitudes and Demographic Factors on Various Income-Related Outcomes

	Growth in Annual Earnings 1972-1976				Growth in Family Income 1972-1976				Growth in Family Income/Needs 1972-1976			
	Men		Women		Men		Women		Men		Women	
	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black
Attitude Measures												
Efficacy Index	.032 (.034)	-.076 (.047)	.041 (.106)	.125+ (.076)	.033 (.022)	.004 (.028)	-.005 (.054)	.035 (.033)	.018 (.021)	.018 (.028)	.013 (.048)	.028 (.031)
Control Over Life	.033 (.033)	.045 (.042)	-.018 (.093)	-.130* (.059)	.002 (.021)	.026 (.026)	.005 (.047)	-.077** (.026)	.007 (.020)	.017 (.025)	.005 (.042)	-.091** (.024)
Challenge/Affiliation	-.038 (.038)	.073 (.056)	-.124 (.113)	479** (.096)	-.015 (.024)	.040 (.034)	.013 (.057)	.202** (.042)	-.013 (.023)	.029 (.033)	-.015 (.051)	.201** (.039)
Challenge/Power	.015 (.037)	-.018 (.059)	.002 (.136)	.195* (.096)	-.022 (.023)	.047 (.036)	-.015 (.069)	.018 (.042)	-.036 (.023)	.062+ (.035)	-.003 (.061)	.004 (.039)
Fear of Failure	.061 (.057)	.101 (.080)	-.099 (.138)	.004 (.086)	.013 (.036)	.074 (.048)	.071 (.070)	-.019 (.038)	.005 (.035)	.037 (.047)	.079 (.062)	-.137 (.035)
Future Orientation	.027 (.037)	-.107+ (.056)	-.019 (.119)	.-094 (.081)	-.002 (.023)	-.008 .034	-.154* (.061)	-.057 (.035)	-.003 (.023)	-.003 (.033)	-.117* (.054)	-.085** (.033)
Demographic Variables												
Whather South	-.037 (.027)	.037 (.043)	-.098 (.090)	-.115+ (.068)	-.017 (.017)	.058* (.026)	.095* (.046)	.068* (.030)	-.019 (.017)	.037 (.025)	.054 (.040)	.067* (.028)
ln City Size	-.005 (.009)	.025+ (.014)	.028 (.027)	-.008 (.027)	-.002 (.005)	-.010 (.009)	-.001 (.014)	.002 (.012)	-.001 (.005)	-.003 (.009)	-.008 (.012)	-.001 (.011)
Age	-.005** (.002)	-.009** (.002)	.002 (.004)	-.006* (.003)	-.003* (.001)	-.004** (.001)	-.009** (.002)	-.007** (.001)	.000 (.001)	-.002 (.001)	-.006** (.002)	.003* (.001)
Education	.009+ (.005)	-.006 .007	-.011 (.017)	-.007 (.011)	.006* (.003)	.000 (.004)	.021* (.009)	.003 (.005)	.004 (.003)	-.006 (.004)	.013+ (.008)	.001 (.005)
Test Score	.011 (.008)	.014 (.011)	-.022 (.021)	-.030* (.013)	.002 (.005)	.007 (.007)	-.007 (.011)	.002 (.006)	.003 (.005)	.010 (.007)	-.009 (.010)	.008 (.005)
R^2	.07	.11	.03	.11	.05	.10	.18	.17	.02	.06	.10	.16
Number of Observations	579	314	208	410								

+Significant at .10 level, two-tailed test, assuming simple random sampling
*Significant at .05 level, two-tailed test, assuming simple random sampling
**Significant at .01 level, two-tailed test, assuming simple random sampling

Appendix Table F.2

Regression Results on the Effects of Attitudes and Demographic Factors on Various Income-Related Outcomes

	Growth in Welfare Income 1972-1976				Growth in Welfare Dependency 1972-1976			
	Men		Women		Men		Women	
	White	Black	White	Black	White	Black	White	Black
Attitude Measures								
Efficacy Index	.020 (.023)	.243** (.049)	-.054 (.077)	-.126+ (.071)	-.001 (.003)	.022** (.008)	-.010 (.016)	-.011 (.017)
Control Over Life	-.009 (.022)	-.043 (.044)	.121+ (.068)	.030 (.055)	-.001 (.003)	-.009 (.007)	.019 (.014)	-.010 (.013)
Challenge/Affiliation	-.004 (.025)	.132* (.058)	-.113 (.082)	-.192* (.090)	-.003 (.003)	.015+ (.009)	-.001 (.017)	-.084** (.021)
Challenge/Power	.000 (.025)	.052 (.061)	.134 (.099)	-.203* (.090)	-.002 (.003)	.010 (.010)	.030 (.021)	-.047* (.021)
Fear of Failure	.026 (.038)	.084 (.083)	.148 (.100)	.098 (.080)	-.001 (.004)	.004 (.013)	.046* (.021)	-.000 (.019)
Future Orientation	.024 (.025)	-.028 (.058)	.227** (.087)	-.127+ (.075)	.000 (.003)	-.006 (.009)	.030+ (.018)	-.007 (.018)
Demographic Variables								
Whether South	.005 (.019)	.007 (.045)	.002 (.065)	.244** (.064)	.000 (.002)	-.003 (.007)	-.004 (.014)	.045** (.015)
In City Size	.004 (.006)	-.017 (.015)	.008 (.020)	-.003 .025	.000 (.001)	-.001 (.002)	-.000 (.004)	-.004 (.006)
Age	.000 (.001)	.004 (.003)	.004 (.003)	.001 (.003)	.000 (.000)	.001** (.000)	.001 (.001)	.001 (.001)
Education	-.002* (.003)	.001 (.007)	-.001 (.012)	.035** (.010)	-.000 (.000)	.002* (.001)	-.001 (.003)	.014** (.002)
Test Score	-.001 (.005)	-.014 .011	.036* (.016)	.038** (.012)	.000 (.001)	-.001 (.002)	.009** (.003)	.003 (.003)
R^2	.01	.13	.10	.12	.01	.08	.09	.15
Number of Observations								

+Significant at .10 level, two-tailed test, assuming simple random sampling
*Significant at .05 level, two-tailed test, assuming simple random sampling
**Significant at .01 level, two-tailed test, assuming simple random sampling

Appendix Table F.3

Regression Results on the Effects of Attitudes and Demographic Factors on Other Outcome Measures

Attitudes Measure	Growth in Work Hours 1972-1976				Growth in Private Help Received From Outside Household 1972-1976				Growth in Income of Others in Household 1972-1976			
	Men		Women		Men		Women		Men		Women	
	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black
Efficacy Index	.016 (.031)	-.143** (.045)	.061 (.099)	.133+ (.073)	-.015 (.033)	-.049 (.034)	-.081 (.088)	-.066 (.053)	.098 (.060)	.032 (.080)	.009 (.127)	.071 (.083)
Control Over Life	.042 (.031)	.109** (.041)	-.018 (.087)	-.085 (.056)	-.001 (.032)	-.038 (.031)	-.057 (.077)	.103* (.041)	-.082 (.059)	-.010 (.073)	.094 (.111)	.072 (.064)
Challenge/Affiliation	-.038 (.035)	-.001 (.054)	-.069 (.105)	.447** (.091)	.021 (.036)	-.021 (.040)	.124 (.093)	-.152* (.066)	.058 (.066)	.173+ (.096)	.081 (.135)	.123 (.104)
Challenge/Power	.041 (.034)	-.048 (.057)	.102 (.127)	.151+ (.092)	-.024 (.036)	.043 (.043)	.037 (.113)	.120+ (.067)	-.001 (.066)	.029 (.101)	-.017 (.163)	-.103 (.105)
Fear of Failure	.071 (.052)	.024 (.077)	-.118 (.129)	.024 (.082)	.096+ (.054)	-.076 (.058)	-.180 (.114)	-.021 (.059)	-.092 (.100)	.209 (.137)	-.007 (.165)	.172+ (.093)
Future Orientation	.052 (.034)	-.106* (.054)	-.028 (.111)	-.036 (.077)	.011 (.035)	.042 (.040)	.146 (.099)	.170** (.056)	-.060 (.065)	-.231* (.096)	-.287* (.143)	.045 (.088)

NOTE: Other variables included in the regression: whether south, city size, age, education, test score.

+Significant at .10 level, two-tailed test, assuming simple random sampling
*Significant at .05 level, two-tailed test, assuming simple random sampling
**Significant at .01 level, two-tailed test, assuming simple random sampling

Appendix Table F.4

Regression Results on the Effects of Attitudes and Demographic Factors on Other Outcome Measures

Attitudes Measure	Change in Whether Working and Not Receiving Welfare 1972 and 1977		Change in Whether Young Children and Receiving Welfare 1972 and 1977		Change in Number of Adults 1972 and 1977		Whether Married or Living Together 1977	
	Women Only		Women Only		Women Only		Women Only	
	White	Black	White	Black	White	Black	White	Black
Efficacy Index	-.098 (.102)	.174** (.064)	-.047 (.055)	.110 (.068)	.060 (.178)	.037 (.119)	.056 (.093)	-.036 (.039)
Control Over Life	-.048 (.089)	.049 (.049)	.036 (.049)	-.127* (.053)	.146 (.157)	.047 (.092)	.054 (.082)	.065* (.030)
Challenge/Affiliation	-.047 (.108)	.090 (.080)	-.044 (.059)	.132 (.086)	.095 (.190)	-.186 (.150)	.020 (.100)	.093+ (.049)
Challenge/Power	.062 (.130)	-.164* (.081)	-.028 (.071)	-.139 (.087)	.045 (.228)	-.073 (.151)	.109 (.120)	-.016 (.050)
Fear of Failure	-.051 (.132)	-.021 (.072)	-.102 (.072)	.085 (.077)	.020 (.231)	.230+ (.134)	.034 (.122)	-.016 (.044)
Future Orientation	.062 (.114)	-.051 (.067)	.003 (.062)	.004 (.073)	-.334+ (.200)	.324** (.126)	.066 (.105)	-.027 (.042)

NOTE: Other variables included in the regression: whether south, in city size, age, education, test score.

+Significant at .10 level, two-tailed test, assuming simple random sampling
*Significant at .05 level, two-tailed test, assuming simple random sampling
**Significant at .01 level, two-tailed test, assuming simple random sampling

Appendix Table F.5

Regression Results on the Effects of Attitudes on Various One-Year Change Outcomes

Attitude Measure	Growth in Annual Earnings 1972-1973				Growth in Family Income 1972-1973				Growth in Family Income/Needs 1972-1973			
	Men		Women		Men		Women		Men		Women	
	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black
Efficacy Index	.011 (.019)	.182** (.041)	.025 (.062)	-.134* (.058)	-.010 (.039)	.145** (.055)	.049 (.076)	-.054 (.057)	-.022 (.039)	.144** (.055)	.090 (.069)	-.049 (.056)
Control Over Life	-.024 (.019)	-.008 (.037)	.031 (.055)	.024 (.045)	.020 (.038)	.005 (.049)	-.074 (.067)	.074+ (.044)	.025 (.038)	-.017 (.050)	-.063 (.060)	.073+ (.043)
Challenge/Affiliation	.023 (.0[illegible]1)	.051 (.048)	.137* (.066)	-.028 (.073)	-.023 (.043)	.115+ (.065)	.136+ (.081)	-.095 (.072)	.009 (.043)	.081 (.066)	.046 (.073)	-.105 (.070)
Challenge/Power	.006 (.021)	-.089+ (.051)	-.001 (.080)	-.083 (.073)	-.047 (.043)	-.093 (.069)	.014 (.097)	.211** (.072)	-.053 (.042)	-.082 (.070)	.082 (.088)	.288** (.071)
Fear of Failure	-.007 (.032)	-.032 (.069)	-.050 (.081)	.015 (.065)	-.047 (.065)	-.064 (.093)	-.040 (.099)	-.026 (.064)	-.025 (.065)	-.107 (.094)	.025 (.089)	-.036 (.063)
Future Orientation	-.007 (.021)	.109* (.048)	.029 (.070)	-.034 (.061)	.074+ (.042)	.057 (.065)	-.101 (.086)	.003 (.060)	.071+ (.042)	.103 (.066)	-.019 (.077)	-.109 (.059)

Note: Other variables included in the regression, whether south, ln city size, age, education, test score.
+Significant at .10 level, two-tailed test, assuming simple random sampling
*Significant at .05 level, two-tailed test, assuming simple random sampling
**Significant at .01 level, two-tailed test, assuming simple random sampling

Appendix Table F.6

Regression Results on Interactions between Attitudes and Age, Education and Whether Young Children

	Growth in Annual Earnings 1972-1976				Growth in Family Income 1972-1976				Growth in Family Income/Needs 1972-1976				Growth in Welfare Income 1972-1976			
	Men		Women		Men		Women		Men		Women		Men		Women	
	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black
Regression #1:																
Efficacy X Education	.023* (.010)	-.029* (.014)	.020 (.043)	.079** (.030)	.011 (.007)	-.023** (.009)	-.026 (.021)	.035** (.013)	.014* (.006)	-.021* (.008)	-.011 (.019)	.037** (.012)	.000 (.007)	.036* (.015)	.026 (.031)	.002 (.028)
Control X Education	-.023* (.011)	.008 (.012)	-.019 (.036)	.002 (.023)	-.007 (.007)	.008 (.007)	-.033+ (.018)	.005 (.010)	-.008 (.006)	.003 (.007)	-.035* (.016)	.005 (.009)	.010 (.007)	-.021+ (.013)	-.016 (.026)	.001 (.021)
Chal/Affil X Education	.012 (.011)	-.024 (.016)	-.045 (.051)	-.055 (.037)	-.002 (.007)	-.015 (.010)	-.006 (.026)	-.039* (.016)	-.001 (.007)	-.011 (.010)	.000 (.023)	-.030* (.015)	.000 (.008)	.023 (.017)	.066+ (.037)	.023 (.035)
Chal/Power X Education	-.021+ (.011)	.014 (.017)	-.066 (.055)	-.107** (.042)	-.006 (.007)	.006 (.010)	.011 (.027)	-.006 (.018)	-.009 (.007)	.011 (.010)	.008 (.024)	-.013 (.017)	-.011 (.008)	-.013 (.017)	-.058 (.039)	.151** (.039)
Regression #2:																
Efficacy X Age	-.011** (.004)	.015** (.005)	.007 (.010)	-.034** (.007)	-.005* (.002)	.006+ (.003)	.006 (.005)	-.005 (.003)	-.006** (.002)	.004 (.003)	.005 (.004)	-.005 (.003)	-.003 (.002)	-.014* (.005)	-.009 (.007)	.019** (.007)
Control X Age	.007* (.004)	-.011* (.005)	.019+ (.010)	-.005 (.006)	.003 (.002)	-.005+ (.003)	.006 (.005)	.007** (.003)	.004+ (.002)	-.005+ (.003)	.007 (.005)	.008** (.002)	.001 (.003)	.011* (.005)	.001 (.008)	.020** (.005)
Chal/Affil X Age	-.004 (.004)	.006 (.006)	-.004 (.013)	.004 (.010)	.003 (.003)	.004 (.004)	-.013+ (.007)	.006 (.004)	.003 (.002)	.000 (.004)	-.011+ (.006)	.004 (.004)	-.003 (.003)	-.022** (.006)	-.002 (.010)	.003 (.009)
Chal/Power X Age	.012** (.004)	.006 (.006)	.028+ (.015)	.011 (.010)	.005+ (.003)	-.003 (.004)	.014+ (.007)	.002 (.004)	.005+ (.003)	-.003 (.004)	.011+ (.007)	.001 (.004)	.001 (.003)	.013* (.006)	.006 (.011)	-.030** (.009)
Regression #3:																
Efficacy X Whether Young Children	.035 (.067)	.062 (.093)	-.118 (.290)	.468** (.153)	.004 (.043)	-.027 (.057)	-.113 (.146)	.110+ (.066)	.028 (.041)	-.007 (.056)	-.095 (.129)	.089 (.062)	-.012 (.045)	.307** (.096)	.302 (.206)	-.402** (.144)
Control X Whether Young Children	-.084 (.067)	.131 (.089)	-.094 (.227)	.127 (.122)	-.016 (.043)	.062 (.055)	-.004 (.114)	.100+ (.053)	.011 (.041)	.079 (.054)	-.049 (.101)	.095* (.049)	-.076+ (.045)	-.044 (.093)	.207 (.161)	-.225* (.115)
Chal/Affil X Whether Young Children	-.016 (.073)	-.240* (.110)	-.037 (.267)	.259 (.191)	.020 (.046)	-.081 (.068)	.185 (.134)	-.027 (.083)	.033 (.045)	-.037 (.066)	.095 (.119)	-.029 (.077)	-.079 (.049)	-.173 (.114)	-.271 (.190)	-.127 (.180)
Chal/Power X Whether Young Children	-.129+ (.076)	-.011 (.122)	-.058 (.386)	-.110 (.196)	-.046 (.048)	.019 (.075)	-.198 (.194)	.121 (.085)	-.068 (.046)	.067 (.073)	-.133 (.172)	.116 (.079)	-.070 (.051)	.216+ (.126)	.557* (.274)	.135 (.185)
Regression #4:																

Appendix Table F.6 (continued)

	Growth in Annual Earnings 1972-1976				Growth in Family Income 1972-1976				Growth in Family Income/Needs 1972-1976				Growth in Welfare Income 1972-1976			
	Men		Women		Men		Women		Men		Women		Men		Women	
	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black
Efficacy X Chal/Affil	.064 (.092)	.250+ (.143)	-.431 (.308)	-.190 (.237)	.037 (.058)	.095 (.087)	-.269+ (.157)	.002 (.108)	.050 (.056)	.145+ (.085)	-.233+ (.139)	-.029 (.101)	.071 (.063)	-.229 (.147)	.374+ (.222)	.076 (.229)
Control X Chal/Affil	-.185* (.092)	-.121 (.113)	.204 (.285)	.095 (.190)	-.123* (.058)	-.066 (.069)	.136 (.145)	.131 (.087)	-.129* (.056)	.039 (.067)	.104 (.128)	.164* (.081)	-.021 (.062)	.031 (.117)	-.452* (.205)	.269 (.184)
Efficacy X Chal/Power	.006 (.096)	.019 (.168)	-.242 (.367)	-1.277** (.234)	-.037 (.061)	.136 (.102)	.101 (.187)	-.223* (.107)	-.026 (.059)	.124 (.099)	.064 (.165)	-.183+ (.099)	-.032 (.065)	-.325+ (.173)	-.334 (.264)	.647** (.226)
Control X Chal/Power	.122 (.094)	-.129 (.123)	-.088 (.360)	-.817** (.197)	.005 (.060)	-.137+ (.074)	.018 (.183)	-.140 (.090)	.002 (.058)	-.126+ (.073)	.005 (.162)	-.077 (.084)	.118+ (.064)	.291* (.127)	.252 (.259)	.307 (.191)

NOTE: Other variables included in each set of regressions: Whether South, ln City Size, Age, Education, Test Score, Fear of Failure and Future Orientation

+Significant at .10 level, two-tailed test, assuming simple random sampling
*Significant at .05 level, two-tailed test, assuming simple random sampling
**Significant at .01 level, two-tailed test, assuming simple random sampling

APPENDIX G

REPRESENTATIVENESS OF THE PSID SAMPLE FOR LOW INCOME GROUPS

Although the PSID has been used to estimate the relationship between motivation and income dynamics of low income individuals, it could be argued that it is not appropriate for this purpose because certain types of such individuals are not likely to participate in such a study. In this appendix we examine the various ways in which low income individuals may be excluded from the PSID sample. These include: failure to fall into the initial sampling frame, failure to respond to the initial interview, and failure to respond to subsequent interviews. We conclude that some types of low income individuals, notably those who are without connections to either family or a permanent residence, and recent immigrants are indeed likely to be absent, but most other categories of such individuals, especially those dependent upon welfare, are likely to be very well-represented in the PSID sample.

Who is Excluded from the Initial Sampling Frame?

The initial 1968 PSID sample consisted of two subsamples: 2930 households drawn from the Survey Research Center's master sampling frame of households and 1872 households with incomes less than two times the poverty line in 1967 and with heads less than 60 years of age who had been interviewed in the prior two years by the Census Bureau as part of their Survey of Economic Opportunity. Both of these subsamples are based on residential (noninstitutional) dwellings in the coterminous United States. Any individual who could be associated with a physical dwelling unit had a chance of falling into the original sample. In addition, individuals who were institutionalized in the sense that they lived in military installations, jail, college dormitories, etc. but who were reported as members of families who did fall into the PSID sampling frame were themselves part of the original PSID sample. Institutionalized individuals were carried along in those institutions until they left, at which point the PSID attempted to interview them. Initial interviewing was done in person rather than by telephone (and continues to be done in person for those without telephones) so noncoverage associated with telephone samples is not a concern.

Very few low income individuals would fail to fall into the original sampling frame. Obviously those without permanent homes and who were not considered to be a member of any family would indeed fall outside the frame, as would orphans in institutions. But welfare recipients, older children who still eat or sleep at least part of the time with their parent or guardian, and traumatized individuals who were cared for in non-institutional settings would fall into the frame.

The dynamics that keep the PSID sample representative with respect to new births and the formation of new families does not have a mechanism for including immigrants since 1968 into the sample, so to the extent that new immigrants are of interest, they will not be part of the PSID sample.

Who is Excluded Because of Differential Initial Nonresponse?

The year 1968 was a tumultuous one, especially in large urban areas. The overall response rate for the first wave of the PSID was about 76 percent, but this figure varied considerably by geographic area. Response rates in the central cities of the Northeast and North Central were 61 percent and 60 percent respectively. Response rates in other regions and in other categories of location (suburbs, smaller cities and towns) were all considerably higher. These low response rates invite speculation that especially large numbers of lower income individuals chose not to participate in the initial interviewing wave. There is nothing in the nonresponse figures themselves that support or refute this claim. They show only the general geographic location of the nonresponse and not their specific characteristics. A better test of the differential nonresponse is to compare the characteristics of the surviving sample with other samples and with aggregate data. This is done below.

Who Has Been Lost Since the First Year of the Study?

Response rates in the PSID have been remarkably uniform across demographic subgroups of the population. The overall response rates between 1968 and 1980 has been 71 percent. Response rates within various subgroups are as follows: Blacks, 70 percent: cities of 500,000 or more: 66 percent; individuals age 6-10 in 1968: 76 percent; individuals age 11-17 in 1968: 69 percent; female-headed households in 1968: 67 percent; lowest family income/needs decile in 1968: 73 percent. An exhaustive search through combinations of characteristics that might affect nonresponse found that the lowest response rate was for low educated men with no children living in cities of 500,000 or more. The response rate for this group was 48.1 percent. These are indeed the characteristics of some low income individuals. But we still retain almost half of this entire group, so while there may be some losses, they will not be overwhelming.

Comparisons of PSID Transfer Income Reports with National Aggregates

If substantial numbers of long-term welfare recipients are missing from the PSID, then this ought to be reflected in an undercounting of transfer incomes reported from PSID respondents as compared with official statistics on program benefits. Several factors detract from the precision of this comparison, however, all of them leading to the expectation that PSID estimates will sum to less than program totals for reasons other than nonresponse of long-term recipients:

1. The PSID does not represent institutionalized individuals while they are in institutions and thus program benefits received by persons in nursing homes, school dormitories, military bases, jails and other institutions are not picked up in reports by PSID respondents. This is likely to be most important for comparisons for the Supplemental Security Income program, where substantial numbers of recipients are in nursing homes and other health-care facilities.

2. The PSID is not designed to represent immigrants since 1968. To the extent that immigrants receive transfer program benefits, the PSID will legitimately understate program totals.

3. The Income of PSID individuals who received benefits during a given calendar year but died before the interview was taken in the spring or summer of the following year will not usually be counted in aggregate estimates made from the PSID. This undercounting will cause the most

problems with SSI estimates, since most SSI recipients are elderly or severely disabled.

4. PSID respondents are often not completely clear about the sources of their transfer incomes, so it is important to compare totals summed across several programs rather than single programs.

Also worthy of note is the fact that surveys such as the CPS undercount transfer incomes to a substantial degree. A comparison of CPS income reports to independent aggregates for 1979 revealed that the CPS can account for about 69.4 percent of Supplemental Security Income, 77.2 percent of Aid to Families With Dependent Children, and 90.9 percent of Social Security/Railroad Retirement income.[59] Finding that PSID totals are comparable to CPS totals does not, of course, provide evidence that the PSID is representative of long-term recipients, only that it may be as useful as any other survey source in analyzing the welfare recipients it retains in its sample.

Table G.1 shows the PSID aggregate comparisons for calendar year 1980. Taking the AFDC program by itself, the PSID totals are 76.6 percent of the official totals.[60] PSID respondents report more "other welfare" than are shown in program totals. Taking the entire set of "Public Assistance" cash programs, PSID aggregates sum to 91.8 percent of the aggregates. This sum is quite respectable given the legitimate reasons mentioned earlier, especially exclusion

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[59] U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 137, Money Income of Households, Families and Persons in the United States, 1981, U.S. Government Printing Office, Washington, D.C., 1983, Table A-2, p. 216.

[60] The PSID aggregate estimates were obtained from the 1981 family-individual file. The individual was chosen as the unit of analysis. If the individual was: 1) a relation to the household head other than head or wife and received transfer income in the appropriate category (as registered on the individual's data record), then that amount was considered to be the transfer income of that individual, 2) a sample head with no spouse, then the entire amount of head-and-wife transfer income in the family record was considered to be the transfer income of that individual, 3) a sample head or wife with a sample spouse, then half of the amount of head-and-wife transfer income was considered to be the transfer income of that individual, and 4) a sample head or wife with a nonsample spouse, then the entire amount of head-and-wife transfer income was considered to be the transfer income of that individual. Mean amounts of the various transfer incomes were multiplied by the total weight-sum and then multiplied by 565, the factor that converts the revised individual and family weight units into the corresponding number of individuals and families in the population. Note that performing this analysis on the family level would be complicated by the treatment of incomes for family members who are in the family for only part of the year. That is why the analysis was done at the individual level.

Table G.1

Comparison of Various Transfer Income Sources PSID vs. Official Aggregates, 1980 (in thousands of dollars)

	PSID	Official Statistics	PSID/ Official
Public Assistance AFDC	$9,556,000	$12,475,245[a]	.766
"Other welfare"	3,346,800	b	
General assistance	c	1,442,278[a]	
Emergency assistance payments	c	113,238[a]	
Other	c	17,710[a]	
Subtotal	$12,902,800	$14,048,471[a]	.918
Supplemental Security Income--Unadjusted	$5,610,500	$ 7,857,500[d]	.714
Adjusted		6,676,385[e]	.840[e]
Total	$18,513,300	$20,724,856[d]	.893
OASDHI	$108,851,000	$128,740,600[d]	.846

Source of Official Statistics: Social Security Bulletin 46, No. 2 (February, 1983).

[a] Table M-29, P. 83

[b] This aggregate was asked in PSID questionnaires and consists of components listed below.

[c] Not asked separately in the PSID.

[d] Table M-1, P. 61.

[e] See text for an explanation of these figures.

of recent immigrants from the PSID sample, on why PSID totals may sum to less than the program totals. Another important point in these comparisons is that these aggregate figures are the product of the number of recipients and the amount reported per recipients. Understating the aggregate total may not imply an understatement of the number of recipients if the amounts per recipient are sufficiently low.[61]

Amounts of Supplemental Security Income reported by PSID respondents are 71.4 percent of program totals. However, several adjustments can be made to this figure.[62] First, the sample selection procedure followed in making these aggregate estimates from the PSID excluded all recipients who had died between the calendar year in which income was received and the interview that gathered the income information. Since they can be expected to account for roughly five percent of SSI benefits, the proper "official" aggregate for comparison is .95 x $7,857,500,000 = $7,464,625,000. A second factor of noncomparability is immigration since 1968. PSID totals cannot count for SSI benefits received by these individuals. How much of the SSI benefits do they account for? No firm statistics on this exist. In the early 1980's the annual rate of immigrant additions to the SSI roles was approximately 23,000 per year. It is unlikely that this rate has been maintained since the first years of the PSID, but a crude and probably conservative estimate of their numbers would be 140,000. If each received the average benefit of $1,691 in 1980, the aggregate of SSI they would have received in 1980 would amount to $236,740,000. A third adjustment is for individuals living in institutional housing who will also not appear in the PSID aggregate estimates. Some $67.5 millions of SSI benefits were paid in 1980 to individuals living in medicaid-supported institutions, while some $484 millions were paid to individuals living in other domiciling care institutions.

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[61] It would be useful to compare numbers of PSID recipients with aggregate recipient totals but this is not possible since PSID reports are for respondents who receive AFDC at any point during the year, while the official case totals are at individual points in time. Turnover in the rolls will produce more recipients of calendar year transfer incomes than at a point in time and there is no aggregate source of information on turnover.

[62] The assistance of Jack Schmullwitz of the Social Security Administration in quantifying these adjustments is gratefully acknowledged. However, he is not to be held responsible for any of them.

Subtracting each of these "adjustments" from the official aggregate leaves an adjusted official aggregate of $6,676,385,000. The PSID aggregate estimate is 84.0 percent of this figure.

All in all, the PSID aggregate figures on welfare programs are quite close to official program totals, perhaps closer than CPS estimates, and provide no reason to suspect that the PSID does not represent long-term welfare recipients adequately.

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